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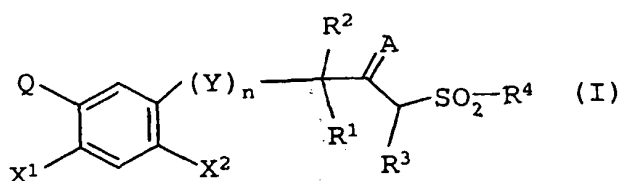
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(54) Title: HETEROCYCLYL SUBSTITUTED PHENOXYALKYL-, PHENYLTHIOALKYL-, PHENYLAMINOALKYL- AND
PHENYLALKYL-SULFAMOYL CARBOXAMIDES



(57) Abstract: The present invention describes
compounds, compositions, and methods for treating
target plants with an herbicidally effective amount
of a compound of formula (I) or a composition that
includes compounds of formula (I), wherein A, Q, R¹,
R², R³, R⁴, X¹, X², Y, and n are as defined herein.

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HETEROCYCLYL SUBSTITUTED PHENOXYALKYL-, PHENYLTHIOALKYL-,
 PHENYLAMINOALKYL- AND PHENYLALKYL-
 SULFAMOYL CARBOXAMIDES

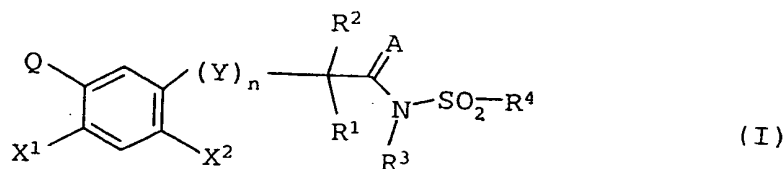
5 The present invention relates to new herbicidal compounds, compositions, and their methods of use; in particular, the present invention relates to cyclic imide phenoxyalkyl-, phenylthioalkyl-, and phenalkylsulfamoylcarboxamides as herbicidal agents.

Weeds persist in many crops, thereby lowering crop quantity and quality.

10 Applying herbicides containing active ingredients such as heterocyclyl substituted phenyl compounds is effective in the control of undesired vegetation especially weeds. As a rule, these compounds have a substituent, for example a halogen atom, on the phenyl ring in the 2- and/or the 4-position relative to the heterocyclic radical, the letter comprising at least one nitrogen atom as a ring member. A side chain can be present in
 15 the 5-position of the phenyl ring. Inter alia, compounds are proposed which have an side chain derived from aliphatic acid derivatives. Several references, such as U.S. Patent No. 6,057,269 to Klintz et al. and U.S. Patent No. 4,859,229 to Wenger et al., describe various heterocyclyl substituted phenyl compounds, compositions, and the use of those compounds as pesticidal agents.

20 The compounds of the prior art are frequently not satisfactory with respect to their herbicidal activity and their selectivity. It is therefore an object of the present invention to make available compounds having high herbicidal activity. The compounds should preferably act selectively against harmful weeds and not affect culture plants.

25 We have surprisingly found that this object is achieved by heterocyclyl substituted phenyl compounds of the formula I as described below. Thus, the present invention relates to compounds of the formula I



30 wherein:

A is O or S;

X^1 and X^2 are each independently H or halogen;

5 n is 0 or 1

Y is O, NR, S(O)_m or a group CHR';

m is 0, 1, or 2;

10

R is H, C₁-C₄ alkyl, C₁-C₄ alkoxyalkyl, or optionally substituted benzyl;

R' is hydrogen or R' and R² form a bond;

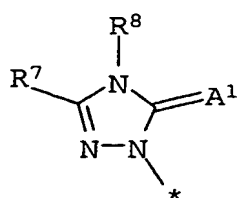
15 R¹ and R² are each independently H, C₁-C₆ alkyl, or halogen, or R¹ and R² taken together are =CH₂, or form a cyclopropyl ring with the carbon to which they are attached;

20 R³ is H, CN, C₁-C₆ alkyl, C₁-C₆ alkoxyalkyl, C₃-C₇ cycloalkyl, C₂-C₆ alkenyl, C₃-C₆ alkynyl or optionally substituted benzyl;

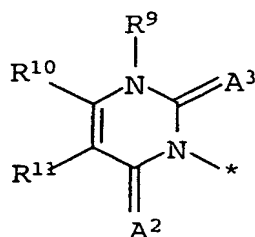
R⁴ is NR⁵R⁶, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₃-C₇ cycloalkyl, C₂-C₆ alkenyl, C₃-C₆ alkynyl, optionally substituted phenyl, optionally substituted 4 to 7 membered heterocyclyl or optionally substituted benzyl;

25

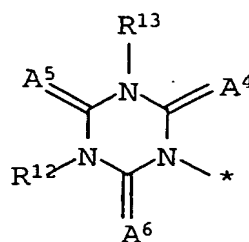
Q is selected from nitrogen containing heterocycles of the formulae Q1 to Q8



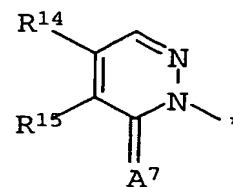
Q1



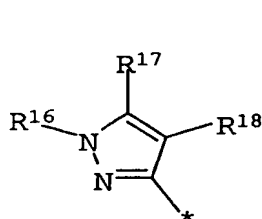
Q2



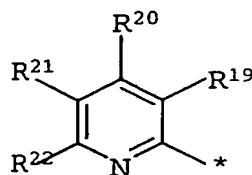
Q3



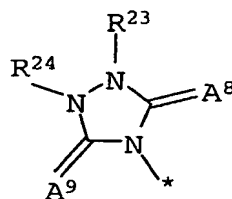
Q4



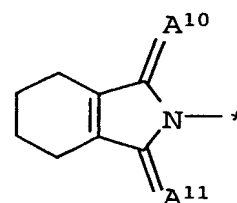
Q5



Q6



Q7



Q8

wherein the Q group is attached to the phenyl ring of formula I at *;

5

R⁵ and R⁶ are each independently H, C₁-C₁₀ alkyl, C₂-C₁₀ alkenyl, C₃-C₁₀ alkynyl, C₃-C₈ cyloalkyl, phenyl, benzyl or C₅-C₈ cycloalkenyl, where each of the
aforementioned seven groups can be substituted with any combination of 1, 2,
3, 4 or 5 halogen atoms, 1, 2 or 3 C₁-C₆ alkoxy groups, 1 or 2 C₁-C₆ haloalkoxy
groups, 1 or 2 cyano groups, 1 or 2 C₃-C₇ cycloalkyl groups, 1 or 2 two
C(O)R²⁵ groups, 1 or 2 C(O)OR²⁶ groups, 1 or 2 C(O)NR²⁸R²⁹ groups, 1, 2 or 3
OR³⁰ groups, 1, 2 or 3 SR³¹ groups, one optionally substituted four to ten
membered monocyclic or fused bicyclic heterocycle, one or two optionally
substituted phenyl groups or one or two optionally substituted benzyl groups, or

15

R⁵ may be also a group CONR^{5a}R^{6a} or SO₂NR^{5a}R^{6a} wherein R^{5a} and R^{6a} are
each independently H, C₁-C₁₀ alkyl, C₂-C₁₀ alkenyl, C₃-C₁₀ alkynyl, C₃-C₈
cyloalkyl, phenyl, benzyl or C₅-C₈ cycloalkenyl, where each of the
aforementioned seven groups can be substituted with any combination of 1, 2,
3, 4 or 5 halogen atoms, 1, 2 or 3 C₁-C₆ alkoxy groups, 1 or 2 C₁-C₆ haloalkoxy
groups, 1 or 2 cyano groups, 1 or 2 C₃-C₇ cycloalkyl groups, 1 or 2 two

20

C(O)R²⁵ groups, 1 or 2 C(O)OR²⁶ groups, 1 or 2 C(O)NR²⁸R²⁹ groups, 1, 2 or 3 OR³⁰ groups, 1, 2 or 3 SR³¹ groups, one optionally substituted four to ten membered monocyclic or fused bicyclic heterocycle, one or two optionally substituted phenyl groups or one or two optionally substituted benzyl groups, or

R⁵ and R⁶ together with the atom to which they are attached form a three to seven membered heterocycle;

A¹, A², A³, A⁴, A⁵, A⁶, A⁷, A⁸, A⁹, A¹⁰ and A¹¹ are each independently O or S;

R⁷, R⁸, R⁹, R¹², R¹³, R¹⁶, R¹⁷, R²³ and R²⁴ are each independently H, CN, NH₂, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ haloalkoxy, C₃-C₇ cycloalkyl, C₂-C₆ alkenyl, C₂-C₆ haloalkenyl, C₃-C₆ alkynyl, benzyl, OR³², C₁-C₃ cyanoalkyl, or R⁷ and R⁸ or R²³ and R²⁴ may be taken together with the atoms to which they are attached to represent a four- to seven membered ring, optionally interrupted by oxygen, sulfur or nitrogen and optionally substituted with one or more halogen or C₁-C₄ alkyl groups;

R¹⁰, R¹¹, R¹⁴, R¹⁵, R¹⁹, R²⁰, R²¹ and R²² are each independently H, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₃-C₇ cycloalkyl, C₂-C₆ alkenyl, C₂-C₆ haloalkenyl, C₃-C₆ alkynyl, OR³³, S(O)_mR³⁴, OSO₂R³⁵, NR³⁶R³⁷ or

R¹⁰ and R¹¹ may be taken together with the atoms to which they are attached to represent a four to seven membered ring optionally substituted with one or more halogen or C₁-C₄ alkyl groups,

one of the radicals R¹⁹, R²⁰, R²¹ or R²² may also be an optionally substituted phenyl group;

R¹⁸ is H, halogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₃-C₇ cycloalkyl, C₂-C₆ alkenyl, C₂-C₆ haloalkenyl, C₃-C₆ alkynyl, OR³⁸ or SR³⁹ or

R^{17} and R^{18} may be taken together with the atoms to which they are attached to represent a four to seven membered ring optionally substituted with one or more halogen or C_1 - C_4 alkyl groups;

5 R^{25} , R^{26} , R^{28} , R^{29} , R^{30} , R^{31} , R^{32} , R^{33} , R^{34} , R^{35} , R^{36} , R^{37} , R^{38} and R^{39} are each independently H, C_1 - C_6 alkyl, C_1 - C_6 haloalkyl, C_3 - C_7 cycloalkyl, C_2 - C_6 alkenyl, C_3 - C_6 alkynyl, optionally substituted phenyl or optionally substituted benzyl;

or optical isomers, salts or esters thereof.

10

The invention relates also to agricultural compositions comprising at least one compound of the formula I or an agriculturally utilizable salt of I and at least one inert liquid and/or solid carrier and, if desired, at least one surface-active substance.

7. Moreover, the invention relates to the use of the compounds of formula I as
15 herbicides and/or for the desiccation and/or defoliation of plants. The invention relates also to methods of controlling or inhibiting the growth of an undesired vegetation (weeds), which comprises allowing a herbicidally active amount of at least one compound of the formula I or of an agriculturally utilizable salt of I or a composition that includes compounds of formula I, to act on plants, their habitat or on seed. The
20 invention relates also to a method for the desiccation and/or defoliation of plants, which comprises allowing an effective amount of at least one compound of the formula I having desiccant and/or defoliant activity or of an agriculturally utilizable salt of I, as claimed in any of claims 1 to 11, to act on plants.

The compounds of the formula I can have one or more chiral centers in the
25 substituents and then exist either as enantiomer or diastereomer mixtures. The invention relates both to the pure enantiomers or diastereomers and to their mixtures.

Suitable agriculturally utilizable salts are especially the salts of those cations or the acid addition salts of those acids whose cations or anions respectively do not adversely affect the herbicidal action of the compounds I. Thus suitable cations are in
30 particular the ions of the alkali metals, preferably sodium and potassium, the alkaline earth metals, preferably calcium, magnesium and barium, and the transition metals, preferably manganese, copper, zinc and iron, and also the ammonium ion, which if desired can carry one to four C_1 - C_4 alkyl substituents and/or a phenyl or benzyl

substituent. Illustrative examples of amines suitable for forming ammonium cations are ammonia as well as primary, secondary and tertiary C₁-C₁₈ alkylamines, C₁-C₄ hydroxyalkylamines and C₂-C₄ alkoxyalkylamines typically methylamine, ethylamine, n-propylamine, isopropylamine, the four isomeric butylamines, n-amylamine, isoamylamine, hexylamine, heptylamine, octylamine, nonylamine, decylamine, pentadecylamine, hexadecylamine, heptadecylamine, octadecylamine, methyl ethylamine, methyl isopropylamine, methyl hexylamine, methyl nonylamine, methyl pentadecylamine, methyl octadecylamine, ethyl butylamine, ethyl heptylamine, ethyl octylamine, hexyl heptylamine, hexyl octylamine, dimethylamine, diethylamine, di-n-propylamine, diisopropylamine, di-n-butylamine, di-n-amylamine, diisoamylamine, dihexylamine, diheptylamine, dioctylamine, ethanolamine, n-propanolamine, isopropanolamine, N,N-diethanolamine, N-ethylpropanolamine, N-butylethanolamine, allylamine, n-but-2-enylamine, n-pent-2-enylamine, 2,3-dimethylbut-2-enylamine, dibut-2-enylamine, n-hex-2-enylamine, propylenediamine, trimethylamine, triethylamine, tri-n-propylamine, triisopropylamine, tri-n-butylamine, triisobutylamine, tri-sec-butylamine, tri-n-amylamine, methoxyethylamine and ethoxyethylamine; heterocyclic amines such as pyridine, quinoline, isoquinoline, morpholine, piperidine, pyrrolidine, indoline, quinuclidine and azepine; primary arylamines such as anilines, methoxyanilines, ethoxyanilines, o-, m- and p-toluidines, phenylenediamines, benzidines, naphthylamines and o-, m- and p-chloroanilines, in addition phosphonium ions, sulfonium ions, preferably tri(C₁-C₄-alkyl)sulfonium and sulfoxonium ions, preferably tri(C₁-C₄-alkyl)sulfoxonium.

Anions of utilizable acid addition salts are primarily chloride, bromide, fluoride, hydrogensulfate, sulfate, dihydrogenphosphate, hydrogenphosphate, phosphate, nitrate, hydrogencarbonate, carbonate, hexafluorosilicate, hexafluorophosphate, benzoate, and the anions of C₁-C₄-alkanoic acids, preferably formate, acetate, propionate and butyrate. They can be formed by reaction of I with an acid of the corresponding anion, preferably of hydrochloric acid, hydrobromic acid, sulfuric acid, phosphoric acid or nitric acid.

The organic moieties mentioned in the definition of the substituents R¹ - R³⁹ or as radicals on phenyl, heterocycl or cycloalkyl rings - such as the meaning halogen - are collective terms for individual lists of the separate group members. All carbon chains, i.e. all alkyl, haloalkyl, cyanoalkyl, cycloalkyl, alkoxy, haloalkoxy, alkylthio,

alkylsulfinyl, alkylsulfonyl, haloalkylsulfonyl, alkenyl and alkynyl groups and corresponding group moieties in larger groups such as alkoxyalkyl, alkylthioalkyl, (di)alkylamino, (di)alkylaminocarbonyl, alkoxycarbonyl, alkoxycarbonylalkyl etc. can be straight-chain or branched, the prefix C_n-C_m in each case indicating the possible
 5 number of carbon atoms in the group. Halogenated substituents preferably carry one, two, three, four or five identical or different halogen atoms, preferably chlorine and/or fluorine atoms. The meaning halogen is in each case fluorine, chlorine, bromine or iodine, preferably fluorine or chlorine.

The meaning of optionally substituted phenyl or benzyl is in each case that the
 10 phenyl ring may carry one to five, preferably one or two substituents which are preferably selected from halogen, C₁-C₄ alkyl, CN, NH₂, NO₂, C₁-C₄ alkoxy, C₁-C₄ haloalkyl, C₁-C₄ haloalkoxy, C₁-C₄ alkoxycarbonyl, C₁-C₄ alkylcarbonyloxy, C₁-C₄ alkylamino, di-C₁-C₄-alkylamino, C₁-C₄ alkylaminocarbonyl and di-C₁-C₄-alkylaminocarbonyl.

15 C₁-C₄-alkyl: methyl, ethyl, n-propyl, CH(CH₃)₂, n-butyl, CH(CH₃)-C₂H₅, CH₂-CH(CH₃)₂ and C(CH₃)₃;

C₁-C₄-alkoxy: methoxy, ethoxy, n-propoxy, OCH(CH₃)₂, n-butoxy, OCH(CH₃)-C₂H₅, OCH₂-CH(CH₃)₂ and OC(CH₃)₃;

C₁-C₄-haloalkyl: a C₁-C₄-alkyl radical as mentioned above, which is partially or
 20 completely substituted, preferably by one to five halogen atoms, e.g. by fluorine, chlorine, bromine and/or iodine, i.e., for example, CH₂F, CHF₂, CF₃, CH₂Cl, dichloromethyl, trichloromethyl, chlorofluoromethyl, dichlorofluoromethyl, chlorodifluoromethyl, 2-fluoroethyl, 2-chloroethyl, 2-bromoethyl, 2-iodoethyl, 2,2-difluoroethyl, 2,2,2-trifluoroethyl, 2-chloro-2-fluoroethyl, 2-chloro-2,2-difluoroethyl,
 25 2,2-dichloro-2-fluoroethyl, 2,2,2-trichloroethyl, C₂F₅, 2-fluoropropyl, 3-fluoropropyl, 2,2-difluoropropyl, 2,3-difluoropropyl, 2-chloropropyl, 3-chloropropyl, 2,3-dichloropropyl, 2-bromopropyl, 3-bromopropyl, 3,3,3-trifluoropropyl, 3,3,3-trichloropropyl, 2,2,3,3,3-pentafluoropropyl, heptafluoropropyl, 1-(fluoromethyl)-2-fluoroethyl, 1-(chloromethyl)-2-chloroethyl, 1-(bromomethyl)-2-bromoethyl, 4-
 30 fluorobutyl, 4-chlorobutyl, 4-bromobutyl or nonafluorobutyl, especially CH₂F, CHF₂, CF₃, CH₂Cl, dichloromethyl, trichloromethyl, chlorofluoromethyl, dichlorofluoromethyl, chlorodifluoromethyl, and 2,2,2-trifluoroethyl;

C₁-C₁₀-alkyl: an alkyl radical having from 1 to 10, preferably from 1 to 8, especially from 1 to 6 carbon atoms, such as C₁-C₄-alkyl as mentioned above, and also, for example, n-pentyl, 1-methylbutyl, 2-methylbutyl, 3-methylbutyl, 2,2-dimethylpropyl, 1-ethylpropyl, n-hexyl, 1,1-dimethylpropyl, 1,2-dimethylpropyl, 1-methylpentyl, 2-methylpentyl, 3-methylpentyl, 4-methylpentyl, 1,1-dimethylbutyl, 1,2-dimethylbutyl, 1,3-dimethylbutyl, 2,2-dimethylbutyl, 2,3-dimethylbutyl, 3,3-dimethylbutyl, 1-ethylbutyl, 2-ethylbutyl, 1,1,2-trimethylpropyl, 1,2,2-trimethylpropyl, 1-ethyl-1-methylpropyl or 1-ethyl-2-methylpropyl, preferably methyl, ethyl, n-propyl, 1-methylethyl, n-butyl, 1,1-dimethylethyl, n-pentyl or n-hexyl;

C₁-C₆-haloalkyl: a C₁-C₆-alkyl radical as mentioned above which is partially or fully substituted, preferably by one to five halogen atoms, e.g. by fluorine, chlorine, bromine and/or iodine, i.e. for example one of the radicals mentioned under C₁-C₄-haloalkyl, and also 5-fluoro-1-pentyl, 5-chloro-1-pentyl, 5-bromo-1-pentyl, 5-iodo-1-pentyl, 5,5,5-trichloro-1-pentyl, undecafluoro-pentyl, 6-fluoro-1-hexyl, 6-chloro-1-hexyl, 6-bromo-1-hexyl, 6-iodo-1-hexyl, 6,6,6-trichloro-1-hexyl or dodecafluorohexyl;

C₁-C₄-haloalkoxy: a C₁-C₄-alkoxy radical as mentioned above, which is partially or completely substituted, preferably by one to five halogen atoms, e.g. by fluorine, chlorine, bromine and/or iodine, i.e., for example OCH₂F, OCHF₂, OCF₃, OCH₂Cl, OCH(Cl)₂, OCCl₃, chlorofluoromethoxy, dichlorofluoromethoxy, chlorodifluoromethoxy, 2-fluoroethoxy, 2-chloroethoxy, 2-bromoethoxy, 2-iodoethoxy, 2,2-difluoroethoxy, 2,2,2-trifluoroethoxy, 2-chloro-2-fluoroethoxy, 2-chloro-2,2-difluoroethoxy, 2,2-dichloro-2-fluoroethoxy, 2,2,2-trichloroethoxy, OC₂F₅, 2-fluoropropoxy, 3-fluoropropoxy, 2,2-difluoropropoxy, 2,3-difluoropropoxy, 2-chloropropoxy, 3-chloropropoxy, 2,3-dichloropropoxy, 2-bromopropoxy, 3-bromopropoxy, 3,3,3-trifluoropropoxy, 3,3,3-trichloropropoxy, OCH₂-C₂F₅, OCF₂-C₂F₅, 1-(CH₂F)-2-fluoroethoxy, 1-(CH₂Cl)-2-chloroethoxy, 1-(CH₂Br)-2-bromoethoxy, 4-fluorobutoxy, 4-chlorobutoxy, 4-bromobutoxy or nonafluorobutoxy, preferably OCHF₂, OCF₃, dichlorofluoromethoxy, chlorodifluoromethoxy or 2,2,2-trifluoroethoxy;

C₁-C₆-haloalkoxy: a C₁-C₆-alkoxy radical as mentioned above which is partially or fully substituted, preferably by one to five halogen atoms, e.g. by fluorine, chlorine, bromine and/or iodine, i.e. for example one of the radicals mentioned under C₁-C₄-haloalkoxy, and also 5-fluoro-1-pentyloxy, 5-chloro-1-pentyloxy, 5-bromo-1-

pentyloxy, 5-iodo-1-pentyloxy, 5,5,5-trichloro-1-pentyloxy, undecafluoro-pentyloxy, 6-fluoro-1-hexyloxy, 6-chloro-1-hexyloxy, 6-bromo-1-hexyloxy, 6-iodo-1-hexyloxy, 6,6,6-trichloro-1-hexyloxy or dodecafluorohexyloxy;

5 cyano- C_1 - C_4 -alkyl: e.g. cyanomethyl, 1-cyanoeth-1-yl, 2-cyanoeth-1-yl, 1-cyanoprop-1-yl, 2-cyanoprop-1-yl, 3-cyanoprop-1-yl, 1-cyanoprop-2-yl, 2-cyanoprop-2-yl, 1-cyanobut-1-yl, 2-cyanobut-1-yl, 3-cyanobut-1-yl, 4-cyanobut-1-yl, 1-cyanobut-2-yl, 2-cyanobut-2-yl, 1-cyanobut-3-yl, 2-cyanobut-3-yl, 1-cyano-2-methylprop-3-yl, 2-cyano-2-methylprop-3-yl, 3-cyano-2-methylprop-3-yl or 2-cyanomethylprop-2-yl, in particular cyanomethyl or 2-cyanoethyl;

10 C_1 - C_4 -alkoxy- C_1 - C_4 -alkyl: C_1 - C_4 -alkyl which is substituted with one C_1 - C_4 -alkoxy group, e.g. CH_2-OCH_3 , $CH_2-OC_2H_5$, n-propoxymethyl, $CH_2-OCH(CH_3)_2$, n-butoxymethyl, (1-methylpropoxy)methyl, (2-methylpropoxy)methyl, $CH_2-OC(CH_3)_3$, 2-(methoxy)ethyl, 2-(ethoxy)ethyl, 2-(n-propoxy)ethyl, 2-(1-methylethoxy)ethyl, 2-(n-butoxy)ethyl, 2-(1-methylpropoxy)ethyl, 2-(2-methylpropoxy)ethyl, 2-(1,1-

15 dimethylethoxy)ethyl, 2-(methoxy)propyl, 2-(ethoxy)propyl, 2-(n-propoxy)propyl, 2-(1-methylethoxy)propyl, 2-(n-butoxy)propyl, 2-(1-methylpropoxy)propyl, 2-(2-methylpropoxy)propyl, 2-(1,1-dimethylethoxy)propyl, 3-(methoxy)propyl, 3-(ethoxy)propyl, 3-(n-propoxy)propyl, 3-(1-methylethoxy)propyl, 3-(n-butoxy)propyl, 3-(1-methylpropoxy)propyl, 3-(2-methylpropoxy)propyl, 3-(1,1-

20 dimethylethoxy)propyl, 2-(methoxy)butyl, 2-(ethoxy)butyl, 2-(n-propoxy)butyl, 2-(1-methylethoxy)butyl, 2-(n-butoxy)butyl, 2-(1-methylpropoxy)butyl, 2-(2-methylpropoxy)butyl, 2-(1,1-dimethylethoxy)butyl, 3-(methoxy)butyl, 3-(ethoxy)butyl, 3-(n-propoxy)butyl, 3-(1-methylethoxy)butyl, 3-(n-butoxy)butyl, 3-(1-methylpropoxy)butyl, 3-(2-methylpropoxy)butyl, 3-(1,1-dimethylethoxy)butyl, 4-

25 (methoxy)butyl, 4-(ethoxy)butyl, 4-(n-propoxy)butyl, 4-(1-methylethoxy)butyl, 4-(n-butoxy)butyl, 4-(1-methylpropoxy)butyl, 4-(2-methylpropoxy)butyl or 4-(1,1-dimethylethoxy)butyl, preferably CH_2-OCH_3 , $CH_2-OC_2H_5$, 2-(methoxy)ethyl, 2-(ethoxy)ethyl;

30 C_1 - C_4 -alkylthio- C_1 - C_4 -alkyl: C_1 - C_4 -alkyl which is substituted with one C_1 - C_4 -alkylthio group, i.e. for example CH_2-SCH_3 , $CH_2-SC_2H_5$, n-propylthiomethyl, $CH_2-SCH(CH_3)_2$, n-butylthiomethyl, (1-methylpropylthio)methyl, (2-methylpropylthio)methyl, $CH_2-SC(CH_3)_3$, 2-(methylthio)ethyl, 2-(ethylthio)ethyl, 2-(n-propylthio)ethyl, 2-(1-methylethylthio)ethyl, 2-(n-butylthio)ethyl, 2-(1-

methylpropylthio)ethyl, 2-(2-methylpropylthio)ethyl, 2-(1,1-dimethylethylthio)ethyl, 2-(methylthio)propyl, 2-(ethylthio)propyl, 2-(n-propylthio)propyl, 2-(1-methylethylthio)propyl, 2-(n-butylthio)propyl, 2-(1-methylpropylthio)propyl, 2-(2-methylpropylthio)propyl, 2-(1,1-dimethylethylthio)propyl, 3-(methylthio)propyl, 3-(ethylthio)propyl, 3-(n-propylthio)propyl, 3-(1-methylethylthio)propyl, 3-(n-butylthio)propyl, 3-(1-methylpropylthio)propyl, 3-(2-methylpropylthio)propyl, 3-(1,1-dimethylethylthio)propyl, 2-(methylthio)butyl, 2-(ethylthio)butyl, 2-(n-propylthio)butyl, 2-(1-methylethylthio)butyl, 2-(n-butylthio)butyl, 2-(1-methylpropylthio)butyl, 2-(2-methylpropylthio)butyl, 2-(1,1-dimethylethylthio)butyl, 3-(methylthio)butyl, 3-(ethylthio)butyl, 3-(n-propylthio)butyl, 3-(1-methylethylthio)butyl, 3-(n-butylthio)butyl, 3-(1-methylpropylthio)butyl, 3-(2-methylpropylthio)butyl, 3-(1,1-dimethylethylthio)butyl, 4-(methylthio)butyl, 4-(ethylthio)butyl, 4-(n-propylthio)butyl, 4-(1-methylethylthio)butyl, 4-(n-butylthio)butyl, 4-(1-methylpropylthio)butyl, 4-(2-methylpropylthio)butyl or 4-(1,1-dimethylethylthio)butyl, preferably $\text{CH}_2\text{-SCH}_3$, $\text{CH}_2\text{-SC}_2\text{H}_5$, 2-(SCH_3)ethyl or 2-(SC_2H_5)ethyl;

$\text{C}_1\text{-C}_4\text{-haloalkoxy-C}_1\text{-C}_4\text{-alkyl}$: $\text{C}_1\text{-C}_4\text{-alkyl}$ substituted by one $\text{C}_1\text{-C}_4\text{-haloalkoxy}$ group, for example, 2-(OCHF_2)ethyl, 2-(OCF_3)ethyl or 2-(OC_2F_5)ethyl;

$\text{C}_2\text{-C}_{10}\text{-alkenyl}$: alkenyl, having from 2 to 10, preferably from 2 to 6 and especially from 3 to 4 carbon atoms, e.g. ethenyl, prop-1-en-1-yl, allyl, 1-methylethenyl, 1-buten-1-yl, 1-buten-2-yl, 1-buten-3-yl, 2-buten-1-yl, 1-methylprop-1-en-1-yl, 2-methylprop-1-en-1-yl, 1-methyl-prop-2-en-1-yl, 2-methyl-prop-2-en-1-yl, n-penten-1-yl, n-penten-2-yl, n-penten-3-yl, n-penten-4-yl, 1-methyl-but-1-en-1-yl, 2-methylbut-1-en-1-yl, 3-methylbut-1-en-1-yl, 1-methylbut-2-en-1-yl, 2-methylbut-2-en-1-yl, 3-methylbut-2-en-1-yl, 1-methylbut-3-en-1-yl, 2-methylbut-3-en-1-yl, 3-methylbut-3-en-1-yl, 1,1-dimethylprop-2-en-1-yl, 1,2-dimethylprop-1-en-1-yl, 1,2-dimethylprop-2-en-1-yl, 1-ethylprop-1-en-2-yl, 1-ethylprop-2-en-1-yl, n-hex-1-en-1-yl, n-hex-2-en-1-yl, n-hex-3-en-1-yl, n-hex-4-en-1-yl, n-hex-5-en-1-yl, 1-methylpent-1-en-1-yl, 2-methylpent-1-en-1-yl, 3-methylpent-1-en-1-yl, 4-methylpent-1-en-1-yl, 1-methylpent-2-en-1-yl, 2-methylpent-2-en-1-yl, 3-methylpent-2-en-1-yl, 4-methylpent-2-en-1-yl, 1-methylpent-3-en-1-yl, 2-methylpent-3-en-1-yl, 3-methylpent-3-en-1-yl, 4-methylpent-3-en-1-yl, 1-methylpent-4-en-1-yl, 2-methylpent-4-en-1-yl, 3-methylpent-

4-en-1-yl, 4-methylpent-4-en-1-yl, 1,1-dimethylbut-2-en-1-yl, 1,1-dimethylbut-3-en-1-yl, 1,2-dimethylbut-1-en-1-yl, 1,2-dimethylbut-2-en-1-yl, 1,2-dimethylbut-3-en-1-yl, 1,3-dimethylbut-1-en-1-yl, 1,3-dimethylbut-2-en-1-yl, 1,3-dimethylbut-3-en-1-yl, 2,2-dimethylbut-3-en-1-yl, 2,3-dimethylbut-1-en-1-yl, 2,3-dimethylbut-2-en-1-yl, 2,3-dimethylbut-3-en-1-yl, 3,3-dimethylbut-1-en-1-yl, 3,3-dimethylbut-2-en-1-yl, 1-ethylbut-1-en-1-yl, 1-ethylbut-2-en-1-yl, 1-ethylbut-3-en-1-yl, 2-ethylbut-1-en-1-yl, 2-ethylbut-2-en-1-yl, 2-ethylbut-3-en-1-yl, 1,1,2-trimethylprop-2-en-1-yl, 1-ethyl-1-methylprop-2-en-1-yl, 1-ethyl-2-methylprop-1-en-1-yl or 1-ethyl-2-methylprop-2-en-1-yl;

10 C₂-C₆-haloalkenyl: C₂-C₆-alkenyl as mentioned above which is partially or fully substituted by fluorine, chlorine, bromine and/or iodine, i.e. for example 2-chloroethenyl, 2-chloroallyl, 3-chloroallyl, 2,3-dichloroallyl, 3,3-dichloroallyl, 2,3,3-trichloroallyl, 2,3-dichlorobut-2-enyl, 2-bromoallyl, 3-bromoallyl, 2,3-dibromoallyl, 3,3-dibromoallyl, 2,3,3-tribromoallyl and 2,3-dibromobut-2-enyl;

15 C₂-C₁₀-alkynyl: alkynyl, having from 2 to 10, preferably from 2 to 6 and especially from 3 to 4 carbon atoms, e.g. ethynyl, prop-1-yn-1-yl, prop-2-yn-1-yl, n-but-1-yn-1-yl, n-but-1-yn-3-yl, n-but-1-yn-4-yl, n-but-2-yn-1-yl, n-pent-1-yn-1-yl, n-pent-1-yn-3-yl, n-pent-1-yn-4-yl, n-pent-1-yn-5-yl, n-pent-2-yn-1-yl, n-pent-2-yn-4-yl, n-pent-2-yn-5-yl, 3-methylbut-1-yn-3-yl, 3-methylbut-1-yn-4-yl, n-hex-1-yn-1-yl, n-hex-1-yn-3-yl, n-hex-1-yn-4-yl, n-hex-1-yn-5-yl, n-hex-1-yn-6-yl, n-hex-2-yn-1-yl, n-hex-2-yn-4-yl, n-hex-2-yn-5-yl, n-hex-2-yn-6-yl, n-hex-3-yn-1-yl, n-hex-3-yn-2-yl, 3-methylpent-1-yn-1-yl, 3-methylpent-1-yn-3-yl, 3-methylpent-1-yn-4-yl, 3-methylpent-1-yn-5-yl, 4-methylpent-1-yn-1-yl, 4-methylpent-2-yn-4-yl or 4-methylpent-2-yn-5-yl, preferably prop-2-yn-1-yl;

25 C₃-C₈-cycloalkyl: cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl or cyclooctyl;

C₅-C₈-cycloalkenyl: cyclopenten-1-yl, cyclopenten-3-yl, cyclopent-1-en-4-yl, cyclohexen-1-yl, cyclohexen-3-yl, cyclohex-1-en-4-yl, cyclohepten-1-yl, cyclohepten-3-yl, cyclohept-1-en-4-yl, cyclohept-1-en-5-yl, cycloocten-1-yl, cycloocten-3-yl, cyclooct-1-en-4-yl, cyclooct-1-en-5-yl;

4- to 10-membered heterocyclyl is to be understood as meaning both saturated, partially or fully unsaturated and aromatic heterocycles, which are formed by 4 to 10 ring atoms including one, two, three or four hetero atoms, where the hetero atoms are

selected from nitrogen, oxygen and sulfur. The ring members may form a mono- or bicyclic radical. Preferred heterocyclyl is 5- to 7-membered:

Examples of saturated heterocycles are: oxetan-2-yl, oxetan-3-yl, thietan-2-yl, thietan-3-yl, azetidin-1-yl, azetidin-2-yl, azetidin-3-yl, tetrahydrofuran-2-yl, tetrahydrofuran-3-yl, tetrahydrothiophen-2-yl, tetrahydrothiophen-3-yl, pyrrolidin-1-yl, pyrrolidin-2-yl, pyrrolidin-3-yl, 1,3-dioxolan-2-yl, 1,3-dioxolan-4-yl, 1,3-oxathiolan-2-yl, 1,3-oxathiolan-4-yl, 1,3-oxathiolan-5-yl, 1,3-oxazolidin-2-yl, 1,3-oxazolidin-3-yl, 1,3-oxazolidin-4-yl, 1,3-oxazolidin-5-yl, 1,2-oxazolidin-2-yl, 1,2-oxazolidin-3-yl, 1,2-oxazolidin-4-yl, 1,2-oxazolidin-5-yl, 1,3-dithiolan-2-yl, 1,3-dithiolan-4-yl, pyrrolidin-1-yl, pyrrolidin-2-yl, pyrrolidin-5-yl, tetrahydropyrazol-1-yl, tetrahydropyrazol-3-yl, tetrahydropyrazol-4-yl, tetrahydropyran-2-yl, tetrahydropyran-3-yl, tetrahydropyran-4-yl, tetrahydrothiopyran-2-yl, tetrahydrothiopyran-3-yl, tetrahydropyran-4-yl, piperidin-1-yl, piperidin-2-yl, piperidin-3-yl, piperidin-4-yl, 1,3-dioxan-2-yl, 1,3-dioxan-4-yl, 1,3-dioxan-5-yl, 1,4-dioxan-2-yl, 1,3-oxathian-2-yl, 1,3-oxathian-4-yl, 1,3-oxathian-5-yl, 1,3-oxathian-6-yl, 1,4-oxathian-2-yl, 1,4-oxathian-3-yl, morpholin-2-yl, morpholin-3-yl, morpholin-4-yl, hexahydropyridazin-1-yl, hexahydropyridazin-3-yl, hexahydropyridazin-4-yl, hexahydropyrimidin-1-yl, hexahydropyrimidin-2-yl, hexahydropyrimidin-4-yl, hexahydropyrimidin-5-yl, piperazin-1-yl, piperazin-2-yl, piperazin-3-yl, hexahydro-1,3,5-triazin-1-yl, hexahydro-1,3,5-triazin-2-yl, oxepan-2-yl, oxepan-3-yl, oxepan-4-yl, thiepan-2-yl, thiepan-3-yl, thiepan-4-yl, 1,3-dioxepan-2-yl, 1,3-dioxepan-4-yl, 1,3-dioxepan-5-yl, 1,3-dioxepan-6-yl, 1,3-dithiepan-2-yl, 1,3-dithiepan-2-yl, 1,3-dithiepan-2-yl, 1,3-dithiepan-2-yl, 1,4-dioxepan-2-yl, 1,4-dioxepan-7-yl, hexahydroazepin-1-yl, hexahydroazepin-2-yl, hexahydroazepin-3-yl, hexahydroazepin-4-yl, hexahydro-1,3-diazepin-1-yl, hexahydro-1,3-diazepin-2-yl, hexahydro-1,3-diazepin-4-yl, hexahydro-1,4-diazepin-1-yl and hexahydro-1,4-diazepin-2-yl.

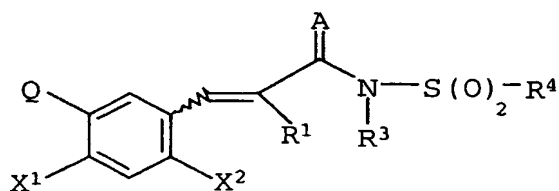
Examples of unsaturated heterocycles are: dihydrofuran-2-yl, 1,2-oxazolin-3-yl, 1,2-oxazolin-5-yl, 1,3-oxazolin-2-yl.

Examples of aromatic heterocyclyl are the 5- and 6-membered aromatic heterocyclic radicals, for example furyl, such as 2-furyl and 3-furyl, thienyl, such as 2-thienyl and 3-thienyl, pyrrolyl such as 2-pyrrolyl and 3-pyrrolyl, isoxazolyl, such as 3-isoxazolyl, 4-isoxazolyl and 5-isoxazolyl, isothiazolyl, such as 3-isothiazolyl, 4-isothiazolyl and 5-isothiazolyl, pyrazolyl, such as 3-pyrazolyl, 4-pyrazolyl and 5-

pyrazolyl, oxazolyl, such as 2-oxazolyl, 4-oxazolyl and 5-oxazolyl, thiazolyl, such as 2-thiazolyl, 4-thiazolyl and 5-thiazolyl, imidazolyl, such as 2-imidazolyl and 4-imidazolyl, oxadiazolyl, such as 1,2,4-oxadiazol-3-yl, 1,2,4-oxadiazol-5-yl and 1,3,4-oxadiazol-2-yl, thiadiazolyl, such as 1,2,4-thiadiazol-3-yl, 1,2,4-thiadiazol-5-yl and 1,3,4-thiadiazol-2-yl, triazolyl, such as 1,2,4-triazol-1-yl, 1,2,4-triazol-3-yl and 1,2,4-triazol-4-yl, pyridinyl, such as 2-pyridinyl, 3-pyridinyl and 4-pyridinyl, pyridazinyl, such as 3-pyridazinyl and 4-pyridazinyl, pyrimidinyl, such as 2-pyrimidinyl, 4-pyrimidinyl and 5-pyrimidinyl, furthermore 2-pyrazinyl, 1,3,5-triazin-2-yl and 1,2,4-triazin-3-yl, in particular pyridyl, pyrimidyl, furanyl and thienyl.

Bicyclic heterocycles are in general derived from monocyclic 5 or 6 membered heterocycles as mentioned above, which contain a condensed 5 or 6 membered carbocyclic or heterocyclic ring as mentioned above: Examples of bicyclic heterocycles are: indole, benzpyrazole, benzimidazole, benzotriazole, benzofurane, benzothiophene, benzothiazole, quinoline, isoquinoline, benzopyran, benzothiopyran etc.

It has to be understood that for $n = 0$ the phenyl ring of formula I is directly linked to the moiety CR^1R^2 by a bond. If Y is CHR' and R^2 and R' together are a bond then formula I is as follows:



wherein R^1 and the phenyl ring can have E or Z conformation.

In a first embodiment of the present invention, the variables X^1 , X^2 , Q, Y, n, A and R^1 to R^4 , are as defined below:

A is O or S;

X^1 and X^2 are each independently H or halogen;

Y is O, NR, or $S(O)_m$;

n is 0 or 1;

m is 0, 1, or 2;

R is H, C_1 - C_4 alkyl, C_1 - C_4 alkoxyalkyl, or optionally substituted benzyl;

R^1 and R^2 are each independently H, C_1 - C_6 alkyl, or halogen, or R^1 and R^2 taken together are $=CH_2$, or form a cyclopropyl ring with the carbon to which they are attached;

R^3 is H, CN, C_1 - C_6 alkyl, C_1 - C_6 alkoxyalkyl, C_3 - C_7 cycloalkyl, C_2 - C_6 alkenyl, C_3 - C_6 alkynyl or optionally substituted benzyl;

R^4 is NR^5R^6 , C_1 - C_6 alkyl, C_1 - C_6 haloalkyl, C_3 - C_7 cycloalkyl, C_2 - C_6 alkenyl, C_3 - C_6 alkynyl, optionally substituted phenyl or optionally substituted benzyl;

5 Q is selected from Q1 to Q7:

R^5 and R^6 are each independently H, C_1 - C_{10} alkyl, C_2 - C_{10} alkenyl, C_3 - C_{10} alkynyl, C_3 - C_8 cycloalkyl, phenyl, benzyl or C_5 - C_8 cycloalkenyl, where each of the
aforementioned seven groups can be substituted with any combination of one to
five halogen atoms, one to three C_1 - C_6 alkoxy groups, one or two C_1 - C_8
10 haloalkoxy groups, one or two cyano groups, one or two C_3 - C_7 cycloalkyl
groups, one or two $C(O)R^{25}$ groups, one or two $C(O)OR^{26}$ groups, one or two
 $C(O)NR^{28}R^{29}$ groups, one to three OR^{30} groups, one to three SR^{31} groups, one
optionally substituted four to ten membered monocyclic or fused bicyclic
heterocycle, one or two optionally substituted phenyl groups or one or two
15 optionally substituted benzyl groups, or R_5 and R_6 together with the atom to
which they are attached form a three to seven membered heterocycle;

$A^1, A^2, A^3, A^4, A^5, A^6, A^7, A^8$, and A^9 are each independently O or S;

$R^7, R^8, R^9, R^{12}, R^{13}, R^{16}, R^{17}, R^{23}$ and R^{24} are each independently H, CN, NH_2 , C_1 - C_6
alkyl, C_1 - C_6 haloalkyl, C_1 - C_6 haloalkoxy, C_3 - C_7 cycloalkyl, C_2 - C_6 alkenyl, C_2 -
20 C_6 haloalkenyl, C_3 - C_6 alkynyl, benzyl, OR^{32} , C_1 - C_3 cyanoalkyl, or
 R^7 and R^8 or R^{23} and R^{24} may be taken together with the atoms to which they
are attached to represent a four- to seven membered ring, optionally interrupted
by oxygen, sulfur or nitrogen and optionally substituted with one or more
halogen or C_1 - C_4 alkyl groups;

25 $R^{10}, R^{11}, R^{14}, R^{15}, R^{19}, R^{20}, R^{21}$ and R^{22} are each independently H, C_1 - C_6 alkyl, C_1 - C_6
haloalkyl, C_3 - C_7 cycloalkyl, C_2 - C_6 alkenyl, C_2 - C_6 haloalkenyl, C_3 - C_6 alkynyl,
 OR^{33} , $S(O)_mR^{34}$, OSO_2R^{35} , $NR^{36}R^{37}$ or
 R^{10} and R^{11} may be taken together with the atoms to which they are attached to
represent a four to seven membered ring optionally substituted with one or more
30 halogen or C_1 - C_4 alkyl groups;

R^{18} is H, halogen, C_1 - C_6 alkyl, C_1 - C_6 haloalkyl, C_3 - C_7 cycloalkyl, C_2 - C_6 alkenyl, C_2 - C_6
haloalkenyl, C_3 - C_6 alkynyl, OR^{38} or SR^{39} ;

$R^{25}, R^{26}, R^{28}, R^{29}, R^{30}, R^{31}, R^{32}, R^{33}, R^{34}, R^{35}, R^{36}, R^{37}, R^{38}$ and R^{39} are each independently H, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₃-C₇ cycloalkyl, C₂-C₆ alkenyl, C₃-C₆ alkynyl, optionally substituted phenyl or optionally substituted benzyl;

In a second embodiment of the present invention, the variables X^1, X^2, A and R^1 to R^4 , are as defined above, Y is O, NR, or S(O)_m, n is 0 or 1, m is 0, 1, or 2, and Q is Q8.

In a third embodiment of the present invention, the variables X^1, X^2, A, Q and R^1 to R^4 , are as defined above and Y is CHR' wherein R' is hydrogen or R' and R² form a bond.

With respect to the herbicidal activity of the compounds of formula I, the variable X^1 is preferably H, fluorine or chlorine. X^2 is preferably chlorine.

With respect to the herbicidal activity of the compounds of formula I, the variables A, Y, n, Q and R^1 to R^4 , alone or in combination, are preferably as defined below:

A is O;

Y is O, NH or S, more preferably O;

n is 0 or 1, more preferably 1;

Q is Q2, wherein R^9, R^{10} and R^{11} are as defined above. More preferred are compounds I, wherein R^9, R^{10} and R^{11} alone or in combination are as defined

below:

R^9 is NH₂, C₁-C₄ alkyl, C₃-C₄ alkenyl or C₃-C₄ alkynyl, more preferably NH₂, or C₁-C₄ alkyl;

R^{10} is C₁-C₄ haloalkyl, more preferably trifluoromethyl; and

R^{11} is H;

Most preferred are compounds I, wherein Q2 is a radical Q2a or Q2b as defined below;

R^1 H, C₁-C₄ alkyl or halogen, more preferably H and methyl;

R^2 H, C₁-C₄ alkyl or halogen, more preferably H and methyl, with the possibility for R^2 also being chlorine, when R^1 is H;

R^3 is H or C₁-C₄ alkyl, more preferably H;

R^4 is NR⁵R⁶, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₃-C₇ cycloalkyl, C₂-C₆ alkenyl, C₃-C₆ alkynyl, optionally substituted phenyl or optionally substituted benzyl, more preferably NR⁵R⁶, C₁-C₄ alkyl or C₁-C₄ haloalkyl, most preferred NR⁵R⁶. In

NR⁵R⁶ the variables R⁵ and R⁶ are as defined above. Preferably R⁵ and R⁶ are each independently H, C₁-C₆ alkyl, which may be substituted with 1, 2, 3, 4 or 5 halogen atoms, preferably with fluorine or chlorine, C₂-C₆ alkenyl, C₃-C₆ alkynyl, C₃-C₇ cycloalkyl, phenyl, benzyl or C₃-C₇ cycloalkenyl. R⁵ and R⁶ may also be C₁-C₄ alkyl which carries one group selected from COOR²⁶, CONR²⁸R²⁹, OR³⁰ or SR³¹, wherein R²⁶, R²⁸, R²⁹, R³⁰ and R³¹ are defined as above. R⁵ and R⁶ together with the atom to which they are attached may also form a three to seven membered saturated heterocyclyl, such as morpholinyl, piridinyl, piperazinyl or N-C₁-C₄-alkylpiperazinyl.

Desirable compounds of formula I include compounds I wherein the variables have the following meanings alone or most preferably in combination:

A is O;

Y is O, NH or S especially O;

n is 0 or 1, preferably 1;

R¹ and R² are each independently H, C₁-C₄ alkyl or halogen or form a cyclopropyl-1 ring with the carbon to which they are attached, more preferably H and methyl;

R³ is H or C₁-C₄ alkyl, more preferably H;

R⁴ is NR⁵R⁶, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₃-C₇ cycloalkyl, C₂-C₆ alkenyl, C₃-C₆ alkynyl, optionally substituted phenyl or optionally substituted benzyl;

Q is Q2, especially Q2, wherein the variables R⁹, R¹⁰ and R¹¹ have the preferred meanings as defined above and most preferred a radical Q2a or Q2b;

R⁵ and R⁶ are each independently H, C₁-C₆ alkyl, C₂-C₆ alkenyl, C₃-C₆ alkynyl, C₃-C₇ cycloalkyl, phenyl, benzyl or C₃-C₇ cycloalkenyl; preferably R⁵ is methyl;

A² and A³ are each O;

R⁹ is NH₂, C₁-C₄ alkyl, C₃ or C₄ alkenyl or C₃-C₄ alkynyl;

R¹⁰ is C₁-C₄ haloalkyl; and

R¹¹ is H.

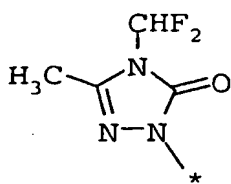
With regard to the heterocyclic radicals Q1 to Q8 the variables A¹, A², A³, A⁴, A⁵, A⁶, A⁷, A⁸, A⁹, A¹⁰, A¹¹, R⁷, R⁸, R⁹, R¹², R¹³, R¹⁶, R¹⁷, R²³ and R²⁴, alone or in

combination, are preferably as defined below:

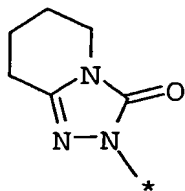
A¹, A², A³, A⁴, A⁵, A⁷, A⁸, A⁹, A¹⁰, A¹¹ are O;

A⁶ is O or S;

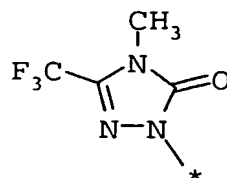
- R^7 is C_1 - C_4 -haloalkyl or C_1 - C_4 -alkyl, especially methyl, difluoromethyl or trifluoromethyl;
- R^8 is C_1 - C_4 -haloalkyl or C_1 - C_4 -alkyl, especially methyl, difluoromethyl or trifluoromethyl; or
- 5 R^7 and R^8 taken together with the atoms to which they are attached represent a 6 membered ring;
- R^9 is NH_2 , C_1 - C_4 alkyl, C_3 - C_4 alkenyl or C_3 - C_4 alkynyl, more preferably NH_2 or C_1 - C_4 alkyl;
- R^{10} is C_1 - C_4 haloalkyl, more preferably trifluoromethyl;
- 10 R^{11} is H;
- R^{12} is C_1 - C_4 alkyl, more preferably methyl;
- R^{13} is C_1 - C_4 alkyl, more preferably methyl;
- R^{14} is C_1 - C_4 haloalkyl, more preferably trifluoromethyl;
- R^{15} is C_1 - C_4 alkyl, more preferably methyl;
- 15 R^{16} is C_1 - C_4 alkyl, more preferably methyl;
- R^{17} is C_1 - C_4 haloalkyl or C_1 - C_4 haloalkoxy, more preferably difluoromethyl, trifluoromethyl, difluoromethoxy or trifluoromethoxy; and
- R^{18} is halogen, more preferably bromine or chlorine;
- R^{19} is halogen, more preferably chlorine;
- 20 R^{20} , R^{22} are H;
- R^{21} is C_1 - C_4 haloalkyl, SO_2R^{34} or OSO_2R^{35} ; more preferably CF_3 , SO_2CH_3 , OSO_2CH_3 , SO_2CF_3 or OSO_2CF_3 ;
- R^{23} is C_1 - C_4 -haloalkyl or C_1 - C_4 -alkyl, especially methyl, difluoromethyl or trifluoromethyl;
- 25 R^{24} is C_1 - C_4 -haloalkyl or C_1 - C_4 -alkyl, especially methyl, difluoromethyl or trifluoromethyl; or
- R^{23} and R^{24} taken together with the atoms to which they are attached represent a 6 membered 1,2-diazacyclohexane ring or a 1,2-diaza-4-oxacyclohexane ring.
- Preferred examples for Q1 to Q7 are the radicals of the formulae Q1a, Q1b,
- 30 Q1c, Q2a, Q2b, Q3a, Q4a, Q4b, Q5a, Q5b, Q5c, Q5d, Q6a, Q6b, Q6c, Q7a, Q7b and Q8a as defined below:



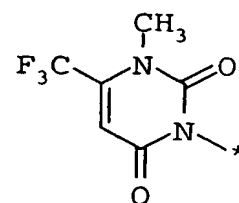
Q1a



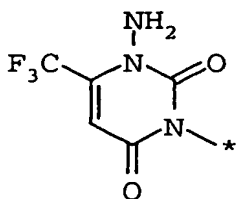
Q1b



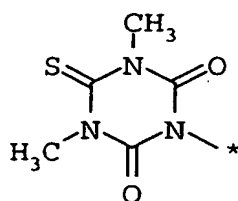
Q1c



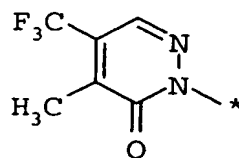
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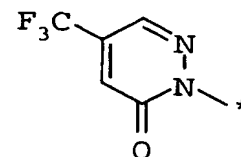
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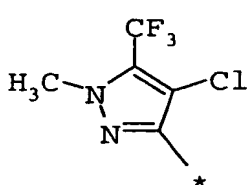
Q3a



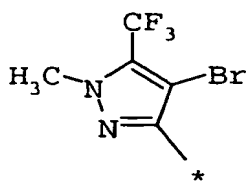
Q4a



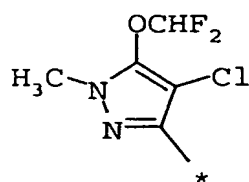
Q4b



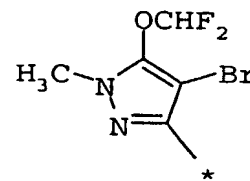
Q5a



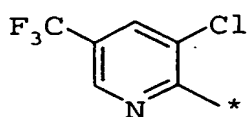
Q5b



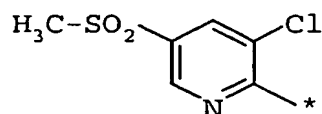
Q5c



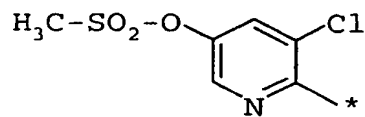
Q5d



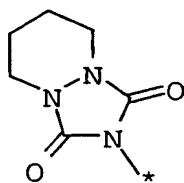
Q6a



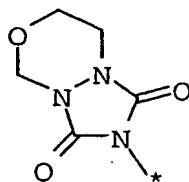
Q6b



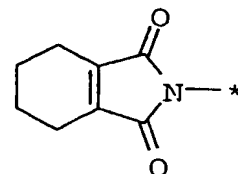
Q6c



Q7a



Q7b

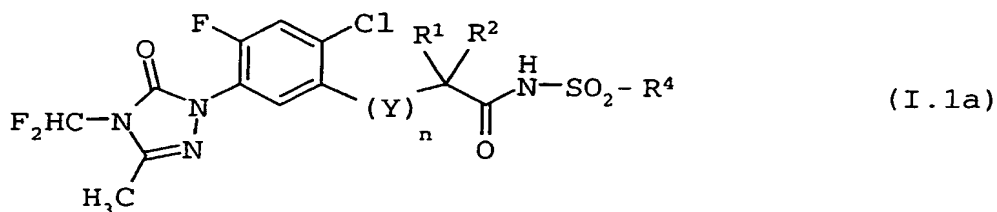


Q8a

The variables R^{25} , R^{26} , R^{30} , R^{31} , R^{32} , R^{33} , R^{34} , R^{35} , R^{38} , R^{39} are preferably
5 different from H and more preferably selected from C_1 - C_4 alkyl, C_1 - C_4 haloalkyl, phenyl or benzyl.

R^{28} , R^{29} , R^{36} , R^{37} , R^{39} are preferably H, C_1 - C_4 alkyl or C_1 - C_4 haloalkyl, it being also possible for R^{28} or R^{36} to be phenyl or benzyl.

Particularly preferred compounds of the general formula I are the compounds of the general formula I.1a as indicated below (compounds I in which $Q = Q1a$, $R^3 = H$, X^1 is fluorine and X^2 is chlorine), in which $(Y)_n$, R^1 , R^2 and R^4 have the meanings as indicated above.



Examples of compounds of formula I.1a are those, wherein $(Y)_n$, R^1 , R^2 and R^4 have the meanings as given in line Nos 1 to 1656 of Table 1. These compounds are also designated below as compounds I.1a.1 to I.1a.1656.

Table 1:

	(Y) _n	R ¹	R ²	R ⁴
1	-	H	H	NH-SO ₂ CH ₃
2	-	H	H	NH-SO ₂ CH ₂ CH ₃
3	-	H	H	NH-SO ₂ CH ₂ CH ₂ CH ₃
4	-	H	H	NH-SO ₂ CH(CH ₃) ₂
5	-	H	H	NH-SO ₂ C(CH ₃) ₃
6	-	H	H	NH-SO ₂ CH ₂ Cl
7	-	H	H	NH-SO ₂ CH ₂ CH ₂ Cl
8	-	H	H	NH-SO ₂ CH ₂ CH ₂ OCH ₃
9	-	H	H	NH-SO ₂ CH ₂ CH ₂ SCH ₃
10	-	H	H	N(CH ₃)-SO ₂ CH ₃
11	-	H	H	N(CH ₃)-SO ₂ CH ₂ CH ₃
12	-	H	H	N(CH ₃)-SO ₂ CH ₂ CH ₂ CH ₃
13	-	H	H	N(CH ₃)-SO ₂ CH(CH ₃) ₂
14	-	H	H	N(CH ₃)-SO ₂ C(CH ₃) ₃
15	-	H	H	N(CH ₃)-SO ₂ CH ₂ Cl
16	-	H	H	N(CH ₃)-SO ₂ CH ₂ CH ₂ Cl
17	-	H	H	N(CH ₃)-SO ₂ CH ₂ CH ₂ OCH ₃
18	-	H	H	N(CH ₃)-SO ₂ CH ₂ CH ₂ SCH ₃
19	-	H	H	N(CH ₂ CH ₃)-SO ₂ CH ₃
20	-	H	H	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₃
21	-	H	H	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ CH ₃
22	-	H	H	N(CH ₂ CH ₃)-SO ₂ CH(CH ₃) ₂
23	-	H	H	N(CH ₂ CH ₃)-SO ₂ C(CH ₃) ₃
24	-	H	H	N(CH ₂ CH ₃)-SO ₂ CH ₂ Cl
25	-	H	H	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ Cl
26	-	H	H	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ OCH ₃
27	-	H	H	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ SCH ₃
28	-	H	H	NH(CH ₃)
29	-	H	H	NHCH ₂ CH ₃
30	-	H	H	NHCH ₂ CH ₂ CH ₃
31	-	H	H	NHCH(CH ₃) ₂
32	-	H	H	NHC(CH ₃) ₃
33	-	H	H	NHCH ₂ CH(CH ₃) ₂
34	-	H	H	NHCH(CH ₃)CH ₂ CH ₃
35	-	H	H	NHCH ₂ CH ₂ Cl
36	-	H	H	NHCH ₂ CH ₂ OCH ₃
37	-	H	H	NHCH ₂ CH ₂ SCH ₃
38	-	H	H	NHCH ₂ COOCH ₃
39	-	H	H	NHCH ₂ CONH ₂
40	-	H	H	NHCH ₂ CH=CH ₂
41	-	H	H	NHCH ₂ C≡CH
42	-	H	H	NH-Cyclopentyl
43	-	H	H	NH-Cyclohexyl
44	-	H	H	NH-Phenyl
45	-	H	H	N(CH ₃) ₂
46	-	H	H	N(CH ₃)CH ₂ CH ₃
47	-	H	H	N(CH ₃)CH(CH ₃) ₂

	(Y) _n	R ¹	R ²	R ⁴
48	-	H	H	N(CH ₃)C(CH ₃) ₃
49	-	H	H	N(CH ₃)CH ₂ CH ₂ CH ₃
50	-	H	H	N(CH ₃)CH ₂ CH(CH ₃) ₂
51	-	H	H	N(CH ₃)CH(CH ₃)CH ₂ CH ₃
52	-	H	H	N(CH ₃)CH ₂ CH ₂ Cl
53	-	H	H	N(CH ₃)CH ₂ CH ₂ OCH ₃
54	-	H	H	N(CH ₃)CH ₂ CH ₂ SCH ₃
55	-	H	H	N(CH ₃)CH ₂ COOCH ₃
56	-	H	H	N(CH ₃)CH ₂ CONH ₂
57	-	H	H	N(CH ₃)CH ₂ CH=CH ₂
58	-	H	H	N(CH ₃)CH ₂ C≡CH
59	-	H	H	N(CH ₃)-Cyclopentyl
60	-	H	H	N(CH ₃)-Cyclohexyl
61	-	H	H	N(CH ₃)-Phenyl
62	-	H	H	N(CH ₂ CH ₃) ₂
63	-	H	H	N(CH ₂ CH ₃)CH(CH ₃) ₂
64	-	H	H	N(CH ₂ CH ₃)CH ₂ CH ₂ CH ₃
65	-	H	H	N(CH ₂ CH ₃)C(CH ₃) ₃
66	-	H	H	N(CH ₂ CH ₃)CH ₂ CH(CH ₃) ₂
67	-	H	H	N(CH ₂ CH ₃)CH(CH ₃)CH ₂ CH ₃
68	-	H	H	N(CH ₂ CH ₃)CH ₂ CH ₂ Cl
69	-	H	H	N(CH ₂ CH ₃)CH ₂ CH ₂ OCH ₃
70	-	H	H	N(CH ₂ CH ₃)CH ₂ CH ₂ SCH ₃
71	-	H	H	N(CH ₂ CH ₃)CH ₂ COOCH ₃
72	-	H	H	N(CH ₂ CH ₃)CH ₂ CONH ₂
73	-	H	H	N(CH ₂ CH ₃)CH ₂ CH=CH ₂
74	-	H	H	N(CH ₂ CH ₃)CH ₂ C≡CH
75	-	H	H	N(CH ₂ CH ₃)-Cyclopentyl
76	-	H	H	N(CH ₂ CH ₃)-Cyclohexyl
77	-	H	H	N(CH ₂ CH ₃)-Phenyl
78	-	H	H	N(CH(CH ₃) ₂) ₂
79	-	H	H	N(CH(CH ₃) ₂)CH ₂ CH(CH ₃) ₂
80	-	H	H	N(CH(CH ₃) ₂)CH(CH ₃)CH ₂ CH ₃
81	-	H	H	N(CH(CH ₃) ₂)CH ₂ CH ₂ Cl
82	-	H	H	N(CH(CH ₃) ₂)CH ₂ CH ₂ OCH ₃
83	-	H	H	N(CH(CH ₃) ₂)CH ₂ CH ₂ SCH ₃
84	-	H	H	N(CH(CH ₃) ₂)CH ₂ COOCH ₃
85	-	H	H	N(CH(CH ₃) ₂)CH ₂ CONH ₂
86	-	H	H	N(CH(CH ₃) ₂)CH ₂ CH=CH ₂
87	-	H	H	N(CH(CH ₃) ₂)CH ₂ C≡CH
88	-	H	H	(CH(CH ₃) ₂)H-Cyclopentyl
89	-	H	H	N(CH(CH ₃) ₂)-Cyclohexyl
90	-	H	H	N(CH(CH ₃) ₂)-Phenyl
91	-	H	H	Morpholin-1-yl
92	-	H	H	Piperidin-1-yl
93	-	H	CH ₃	NH-SO ₂ CH ₃
94	-	H	CH ₃	NH-SO ₂ CH ₂ CH ₃
95	-	H	CH ₃	NH-SO ₂ CH ₂ CH ₂ CH ₃
96	-	H	CH ₃	NH-SO ₂ CH(CH ₃) ₂
97	-	H	CH ₃	NH-SO ₂ C(CH ₃) ₃

	(Y) _n	R ¹	R ²	R ⁴
98	-	H	CH ₃	NH-SO ₂ CH ₂ Cl
99	-	H	CH ₃	NH-SO ₂ CH ₂ CH ₂ Cl
100	-	H	CH ₃	NH-SO ₂ CH ₂ CH ₂ OCH ₃
101	-	H	CH ₃	NH-SO ₂ CH ₂ CH ₂ SCH ₃
102	-	H	CH ₃	N(CH ₃)-SO ₂ CH ₃
103	-	H	CH ₃	N(CH ₃)-SO ₂ CH ₂ CH ₃
104	-	H	CH ₃	N(CH ₃)-SO ₂ CH ₂ CH ₂ CH ₃
105	-	H	CH ₃	N(CH ₃)-SO ₂ CH(CH ₃) ₂
106	-	H	CH ₃	N(CH ₃)-SO ₂ C(CH ₃) ₃
107	-	H	CH ₃	N(CH ₃)-SO ₂ CH ₂ Cl
108	-	H	CH ₃	N(CH ₃)-SO ₂ CH ₂ CH ₂ Cl
109	-	H	CH ₃	N(CH ₃)-SO ₂ CH ₂ CH ₂ OCH ₃
110	-	H	CH ₃	N(CH ₃)-SO ₂ CH ₂ CH ₂ SCH ₃
111	-	H	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₃
112	-	H	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₃
113	-	H	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ CH ₃
114	-	H	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH(CH ₃) ₂
115	-	H	CH ₃	N(CH ₂ CH ₃)-SO ₂ C(CH ₃) ₃
116	-	H	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ Cl
117	-	H	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ Cl
118	-	H	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ OCH ₃
119	-	H	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ SCH ₃
120	-	H	CH ₃	NH(CH ₃)
121	-	H	CH ₃	NHCH ₂ CH ₃
122	-	H	CH ₃	NHCH ₂ CH ₂ CH ₃
123	-	H	CH ₃	NHCH(CH ₃) ₂
124	-	H	CH ₃	NHC(CH ₃) ₃
125	-	H	CH ₃	NHCH ₂ CH(CH ₃) ₂
126	-	H	CH ₃	NHCH(CH ₃)CH ₂ CH ₃
127	-	H	CH ₃	NHCH ₂ CH ₂ Cl
128	-	H	CH ₃	NHCH ₂ CH ₂ OCH ₃
129	-	H	CH ₃	NHCH ₂ CH ₂ SCH ₃
130	-	H	CH ₃	NHCH ₂ COOCH ₃
131	-	H	CH ₃	NHCH ₂ CONH ₂
132	-	H	CH ₃	NHCH ₂ CH=CH ₂
133	-	H	CH ₃	NHCH ₂ C≡CH
134	-	H	CH ₃	NH-Cyclopentyl
135	-	H	CH ₃	NH-Cyclohexyl
136	-	H	CH ₃	NH-Phenyl
137	-	H	CH ₃	N(CH ₃) ₂
138	-	H	CH ₃	N(CH ₃)CH ₂ CH ₃
139	-	H	CH ₃	N(CH ₃)CH(CH ₃) ₂
140	-	H	CH ₃	N(CH ₃)C(CH ₃) ₃
141	-	H	CH ₃	N(CH ₃)CH ₂ CH ₂ CH ₃
142	-	H	CH ₃	N(CH ₃)CH ₂ CH(CH ₃) ₂
143	-	H	CH ₃	N(CH ₃)CH(CH ₃)CH ₂ CH ₃
144	-	H	CH ₃	N(CH ₃)CH ₂ CH ₂ Cl
145	-	H	CH ₃	N(CH ₃)CH ₂ CH ₂ OCH ₃
146	-	H	CH ₃	N(CH ₃)CH ₂ CH ₂ SCH ₃
147	-	H	CH ₃	N(CH ₃)CH ₂ COOCH ₃

	(Y) _n	R ¹	R ²	R ⁴
148	-	H	CH ₃	N(CH ₃)CH ₂ CONH ₂
149	-	H	CH ₃	N(CH ₃)CH ₂ CH=CH ₂
150	-	H	CH ₃	N(CH ₃)CH ₂ C≡CH
151	-	H	CH ₃	N(CH ₃)-Cyclopentyl
152	-	H	CH ₃	N(CH ₃)-Cyclohexyl
153	-	H	CH ₃	N(CH ₃)-Phenyl
154	-	H	CH ₃	N(CH ₂ CH ₃) ₂
155	-	H	CH ₃	N(CH ₂ CH ₃)CH(CH ₃) ₂
156	-	H	CH ₃	N(CH ₂ CH ₃)CH ₂ CH ₂ CH ₃
157	-	H	CH ₃	N(CH ₂ CH ₃)C(CH ₃) ₃
158	-	H	CH ₃	N(CH ₂ CH ₃)CH ₂ CH(CH ₃) ₂
159	-	H	CH ₃	N(CH ₂ CH ₃)CH(CH ₃)CH ₂ CH ₃
160	-	H	CH ₃	N(CH ₂ CH ₃)CH ₂ CH ₂ Cl
161	-	H	CH ₃	N(CH ₂ CH ₃)CH ₂ CH ₂ OCH ₃
162	-	H	CH ₃	N(CH ₂ CH ₃)CH ₂ CH ₂ SCH ₃
163	-	H	CH ₃	N(CH ₂ CH ₃)CH ₂ COOCH ₃
164	-	H	CH ₃	N(CH ₂ CH ₃)CH ₂ CONH ₂
165	-	H	CH ₃	N(CH ₂ CH ₃)CH ₂ CH=CH ₂
166	-	H	CH ₃	N(CH ₂ CH ₃)CH ₂ C≡CH
167	-	H	CH ₃	N(CH ₂ CH ₃)-Cyclopentyl
168	-	H	CH ₃	N(CH ₂ CH ₃)-Cyclohexyl
169	-	H	CH ₃	N(CH ₂ CH ₃)-Phenyl
170	-	H	CH ₃	N(CH(CH ₃) ₂) ₂
171	-	H	CH ₃	N(CH(CH ₃) ₂)CH ₂ CH(CH ₃) ₂
172	-	H	CH ₃	N(CH(CH ₃) ₂)CH(CH ₃)CH ₂ CH ₃
173	-	H	CH ₃	N(CH(CH ₃) ₂)CH ₂ CH ₂ Cl
174	-	H	CH ₃	N(CH(CH ₃) ₂)CH ₂ CH ₂ OCH ₃
175	-	H	CH ₃	N(CH(CH ₃) ₂)CH ₂ CH ₂ SCH ₃
176	-	H	CH ₃	N(CH(CH ₃) ₂)CH ₂ COOCH ₃
177	-	H	CH ₃	N(CH(CH ₃) ₂)CH ₂ CONH ₂
178	-	H	CH ₃	N(CH(CH ₃) ₂)CH ₂ CH=CH ₂
179	-	H	CH ₃	N(CH(CH ₃) ₂)CH ₂ C≡CH
180	-	H	CH ₃	(CH(CH ₃) ₂)H-Cyclopentyl
181	-	H	CH ₃	N(CH(CH ₃) ₂)-Cyclohexyl
182	-	H	CH ₃	N(CH(CH ₃) ₂)-Phenyl
183	-	H	CH ₃	Morpholin-1-yl
184	-	H	CH ₃	Piperidin-1-yl
185	-	CH ₃	CH ₃	NH-SO ₂ CH ₃
186	-	CH ₃	CH ₃	NH-SO ₂ CH ₂ CH ₃
187	-	CH ₃	CH ₃	NH-SO ₂ CH ₂ CH ₂ CH ₃
188	-	CH ₃	CH ₃	NH-SO ₂ CH(CH ₃) ₂
189	-	CH ₃	CH ₃	NH-SO ₂ C(CH ₃) ₃
190	-	CH ₃	CH ₃	NH-SO ₂ CH ₂ Cl
191	-	CH ₃	CH ₃	NH-SO ₂ CH ₂ CH ₂ Cl
192	-	CH ₃	CH ₃	NH-SO ₂ CH ₂ CH ₂ OCH ₃
193	-	CH ₃	CH ₃	NH-SO ₂ CH ₂ CH ₂ SCH ₃
194	-	CH ₃	CH ₃	N(CH ₃)-SO ₂ CH ₃
195	-	CH ₃	CH ₃	N(CH ₃)-SO ₂ CH ₂ CH ₃
196	-	CH ₃	CH ₃	N(CH ₃)-SO ₂ CH ₂ CH ₂ CH ₃
197	-	CH ₃	CH ₃	N(CH ₃)-SO ₂ CH(CH ₃) ₂

	(Y) _n	R ¹	R ²	R ⁴
198	-	CH ₃	CH ₃	N(CH ₃)-SO ₂ C(CH ₃) ₃
199	-	CH ₃	CH ₃	N(CH ₃)-SO ₂ CH ₂ Cl
200	-	CH ₃	CH ₃	N(CH ₃)-SO ₂ CH ₂ CH ₂ Cl
201	-	CH ₃	CH ₃	N(CH ₃)-SO ₂ CH ₂ CH ₂ OCH ₃
202	-	CH ₃	CH ₃	N(CH ₃)-SO ₂ CH ₂ CH ₂ SCH ₃
203	-	CH ₃	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₃
204	-	CH ₃	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₃
205	-	CH ₃	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ CH ₃
206	-	CH ₃	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH(CH ₃) ₂
207	-	CH ₃	CH ₃	N(CH ₂ CH ₃)-SO ₂ C(CH ₃) ₃
208	-	CH ₃	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ Cl
209	-	CH ₃	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ Cl
210	-	CH ₃	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ OCH ₃
211	-	CH ₃	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ SCH ₃
212	-	CH ₃	CH ₃	NH(CH ₃)
213	-	CH ₃	CH ₃	NHCH ₂ CH ₃
214	-	CH ₃	CH ₃	NHCH ₂ CH ₂ CH ₃
215	-	CH ₃	CH ₃	NHCH(CH ₃) ₂
216	-	CH ₃	CH ₃	NHC(CH ₃) ₃
217	-	CH ₃	CH ₃	NHCH ₂ CH(CH ₃) ₂
218	-	CH ₃	CH ₃	NHCH(CH ₃)CH ₂ CH ₃
219	-	CH ₃	CH ₃	NHCH ₂ CH ₂ Cl
220	-	CH ₃	CH ₃	NHCH ₂ CH ₂ OCH ₃
221	-	CH ₃	CH ₃	NHCH ₂ CH ₂ SCH ₃
222	-	CH ₃	CH ₃	NHCH ₂ COOCH ₃
223	-	CH ₃	CH ₃	NHCH ₂ CONH ₂
224	-	CH ₃	CH ₃	NHCH ₂ CH=CH ₂
225	-	CH ₃	CH ₃	NHCH ₂ C≡CH
226	-	CH ₃	CH ₃	NH-Cyclopentyl
227	-	CH ₃	CH ₃	NH-Cyclohexyl
228	-	CH ₃	CH ₃	NH-Phenyl
229	-	CH ₃	CH ₃	N(CH ₃) ₂
230	-	CH ₃	CH ₃	N(CH ₃)CH ₂ CH ₃
231	-	CH ₃	CH ₃	N(CH ₃)CH(CH ₃) ₂
232	-	CH ₃	CH ₃	N(CH ₃)C(CH ₃) ₃
233	-	CH ₃	CH ₃	N(CH ₃)CH ₂ CH ₂ CH ₃
234	-	CH ₃	CH ₃	N(CH ₃)CH ₂ CH(CH ₃) ₂
235	-	CH ₃	CH ₃	N(CH ₃)CH(CH ₃)CH ₂ CH ₃
236	-	CH ₃	CH ₃	N(CH ₃)CH ₂ CH ₂ Cl
237	-	CH ₃	CH ₃	N(CH ₃)CH ₂ CH ₂ OCH ₃
238	-	CH ₃	CH ₃	N(CH ₃)CH ₂ CH ₂ SCH ₃
239	-	CH ₃	CH ₃	N(CH ₃)CH ₂ COOCH ₃
240	-	CH ₃	CH ₃	N(CH ₃)CH ₂ CONH ₂
241	-	CH ₃	CH ₃	N(CH ₃)CH ₂ CH=CH ₂
242	-	CH ₃	CH ₃	N(CH ₃)CH ₂ C≡CH
243	-	CH ₃	CH ₃	N(CH ₃)-Cyclopentyl
244	-	CH ₃	CH ₃	N(CH ₃)-Cyclohexyl
245	-	CH ₃	CH ₃	N(CH ₃)-Phenyl
246	-	CH ₃	CH ₃	N(CH ₂ CH ₃) ₂
247	-	CH ₃	CH ₃	N(CH ₂ CH ₃)CH(CH ₃) ₂

	(Y) _n	R ¹	R ²	R ⁴
248	-	CH ₃	CH ₃	N(CH ₂ CH ₃)CH ₂ CH ₂ CH ₃
249	-	CH ₃	CH ₃	N(CH ₂ CH ₃)C(CH ₃) ₃
250	-	CH ₃	CH ₃	N(CH ₂ CH ₃)CH ₂ CH(CH ₃) ₂
251	-	CH ₃	CH ₃	N(CH ₂ CH ₃)CH(CH ₃)CH ₂ CH ₃
252	-	CH ₃	CH ₃	N(CH ₂ CH ₃)CH ₂ CH ₂ Cl
253	-	CH ₃	CH ₃	N(CH ₂ CH ₃)CH ₂ CH ₂ OCH ₃
254	-	CH ₃	CH ₃	N(CH ₂ CH ₃)CH ₂ CH ₂ SCH ₃
255	-	CH ₃	CH ₃	N(CH ₂ CH ₃)CH ₂ COOCH ₃
256	-	CH ₃	CH ₃	N(CH ₂ CH ₃)CH ₂ CONH ₂
257	-	CH ₃	CH ₃	N(CH ₂ CH ₃)CH ₂ CH=CH ₂
258	-	CH ₃	CH ₃	N(CH ₂ CH ₃)CH ₂ C≡CH
259	-	CH ₃	CH ₃	N(CH ₂ CH ₃)-Cyclopentyl
260	-	CH ₃	CH ₃	N(CH ₂ CH ₃)-Cyclohexyl
261	-	CH ₃	CH ₃	N(CH ₂ CH ₃)-Phenyl
262	-	CH ₃	CH ₃	N(CH(CH ₃) ₂) ₂
263	-	CH ₃	CH ₃	N(CH(CH ₃) ₂)CH ₂ CH(CH ₃) ₂
264	-	CH ₃	CH ₃	N(CH(CH ₃) ₂)CH(CH ₃)CH ₂ CH ₃
265	-	CH ₃	CH ₃	N(CH(CH ₃) ₂)CH ₂ CH ₂ Cl
266	-	CH ₃	CH ₃	N(CH(CH ₃) ₂)CH ₂ CH ₂ OCH ₃
267	-	CH ₃	CH ₃	N(CH(CH ₃) ₂)CH ₂ CH ₂ SCH ₃
268	-	CH ₃	CH ₃	N(CH(CH ₃) ₂)CH ₂ COOCH ₃
269	-	CH ₃	CH ₃	N(CH(CH ₃) ₂)CH ₂ CONH ₂
270	-	CH ₃	CH ₃	N(CH(CH ₃) ₂)CH ₂ CH=CH ₂
271	-	CH ₃	CH ₃	N(CH(CH ₃) ₂)CH ₂ C≡CH
272	-	CH ₃	CH ₃	(CH(CH ₃) ₂)H-Cyclopentyl
273	-	CH ₃	CH ₃	N(CH(CH ₃) ₂)-Cyclohexyl
274	-	CH ₃	CH ₃	N(CH(CH ₃) ₂)-Phenyl
275	-	CH ₃	CH ₃	Morpholin-1-yl
276	-	CH ₃	CH ₃	Piperidin-1-yl
277	O	H	H	NH-SO ₂ CH ₃
278	O	H	H	NH-SO ₂ CH ₂ CH ₃
279	O	H	H	NH-SO ₂ CH ₂ CH ₂ CH ₃
280	O	H	H	NH-SO ₂ CH(CH ₃) ₂
281	O	H	H	NH-SO ₂ C(CH ₃) ₃
282	O	H	H	NH-SO ₂ CH ₂ Cl
283	O	H	H	NH-SO ₂ CH ₂ CH ₂ Cl
284	O	H	H	NH-SO ₂ CH ₂ CH ₂ OCH ₃
285	O	H	H	NH-SO ₂ CH ₂ CH ₂ SCH ₃
286	O	H	H	N(CH ₃)-SO ₂ CH ₃
287	O	H	H	N(CH ₃)-SO ₂ CH ₂ CH ₃
288	O	H	H	N(CH ₃)-SO ₂ CH ₂ CH ₂ CH ₃
289	O	H	H	N(CH ₃)-SO ₂ CH(CH ₃) ₂
290	O	H	H	N(CH ₃)-SO ₂ C(CH ₃) ₃
291	O	H	H	N(CH ₃)-SO ₂ CH ₂ Cl
292	O	H	H	N(CH ₃)-SO ₂ CH ₂ CH ₂ Cl
293	O	H	H	N(CH ₃)-SO ₂ CH ₂ CH ₂ OCH ₃
294	O	H	H	N(CH ₃)-SO ₂ CH ₂ CH ₂ SCH ₃
295	O	H	H	N(CH ₂ CH ₃)-SO ₂ CH ₃
296	O	H	H	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₃
297	O	H	H	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ CH ₃

	(Y) _n	R ¹	R ²	R ⁴
298	O	H	H	N(CH ₂ CH ₃)-SO ₂ CH(CH ₃) ₂
299	O	H	H	N(CH ₂ CH ₃)-SO ₂ C(CH ₃) ₃
300	O	H	H	N(CH ₂ CH ₃)-SO ₂ CH ₂ Cl
301	O	H	H	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ Cl
302	O	H	H	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ OCH ₃
303	O	H	H	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ SCH ₃
304	O	H	H	NH(CH ₃)
305	O	H	H	NHCH ₂ CH ₃
306	O	H	H	NHCH ₂ CH ₂ CH ₃
307	O	H	H	NHCH(CH ₃) ₂
308	O	H	H	NHC(CH ₃) ₃
309	O	H	H	NHCH ₂ CH(CH ₃) ₂
310	O	H	H	NHCH(CH ₃)CH ₂ CH ₃
311	O	H	H	NHCH ₂ CH ₂ Cl
312	O	H	H	NHCH ₂ CH ₂ OCH ₃
313	O	H	H	NHCH ₂ CH ₂ SCH ₃
314	O	H	H	NHCH ₂ COOCH ₃
315	O	H	H	NHCH ₂ CONH ₂
316	O	H	H	NHCH ₂ CH=CH ₂
317	O	H	H	NHCH ₂ C≡CH
318	O	H	H	NH-Cyclopentyl
319	O	H	H	NH-Cyclohexyl
320	O	H	H	NH-Phenyl
321	O	H	H	N(CH ₃) ₂
322	O	H	H	N(CH ₃)CH ₂ CH ₃
323	O	H	H	N(CH ₃)CH(CH ₃) ₂
324	O	H	H	N(CH ₃)C(CH ₃) ₃
325	O	H	H	N(CH ₃)CH ₂ CH ₂ CH ₃
326	O	H	H	N(CH ₃)CH ₂ CH(CH ₃) ₂
327	O	H	H	N(CH ₃)CH(CH ₃)CH ₂ CH ₃
328	O	H	H	N(CH ₃)CH ₂ CH ₂ Cl
329	O	H	H	N(CH ₃)CH ₂ CH ₂ OCH ₃
330	O	H	H	N(CH ₃)CH ₂ CH ₂ SCH ₃
331	O	H	H	N(CH ₃)CH ₂ COOCH ₃
332	O	H	H	N(CH ₃)CH ₂ CONH ₂
333	O	H	H	N(CH ₃)CH ₂ CH=CH ₂
334	O	H	H	N(CH ₃)CH ₂ C≡CH
335	O	H	H	N(CH ₃)-Cyclopentyl
336	O	H	H	N(CH ₃)-Cyclohexyl
337	O	H	H	N(CH ₃)-Phenyl
338	O	H	H	N(CH ₂ CH ₃) ₂
339	O	H	H	N(CH ₂ CH ₃)CH(CH ₃) ₂
340	O	H	H	N(CH ₂ CH ₃)CH ₂ CH ₂ CH ₃
341	O	H	H	N(CH ₂ CH ₃)C(CH ₃) ₃
342	O	H	H	N(CH ₂ CH ₃)CH ₂ CH(CH ₃) ₂
343	O	H	H	N(CH ₂ CH ₃)CH(CH ₃)CH ₂ CH ₃
344	O	H	H	N(CH ₂ CH ₃)CH ₂ CH ₂ Cl
345	O	H	H	N(CH ₂ CH ₃)CH ₂ CH ₂ OCH ₃
346	O	H	H	N(CH ₂ CH ₃)CH ₂ CH ₂ SCH ₃
347	O	H	H	N(CH ₂ CH ₃)CH ₂ COOCH ₃

	(Y) _n	R ¹	R ²	R ⁴
348	O	H	H	N(CH ₂ CH ₃)CH ₂ CONH ₂
349	O	H	H	N(CH ₂ CH ₃)CH ₂ CH=CH ₂
350	O	H	H	N(CH ₂ CH ₃)CH ₂ C≡CH
351	O	H	H	N(CH ₂ CH ₃)-Cyclopentyl
352	O	H	H	N(CH ₂ CH ₃)-Cyclohexyl
353	O	H	H	N(CH ₂ CH ₃)-Phenyl
354	O	H	H	N(CH(CH ₃) ₂) ₂
355	O	H	H	N(CH(CH ₃) ₂)CH ₂ CH(CH ₃) ₂
356	O	H	H	N(CH(CH ₃) ₂)CH(CH ₃)CH ₂ CH ₃
357	O	H	H	N(CH(CH ₃) ₂)CH ₂ CH ₂ Cl
358	O	H	H	N(CH(CH ₃) ₂)CH ₂ CH ₂ OCH ₃
359	O	H	H	N(CH(CH ₃) ₂)CH ₂ CH ₂ SCH ₃
360	O	H	H	N(CH(CH ₃) ₂)CH ₂ COOCH ₃
361	O	H	H	N(CH(CH ₃) ₂)CH ₂ CONH ₂
362	O	H	H	N(CH(CH ₃) ₂)CH ₂ CH=CH ₂
363	O	H	H	N(CH(CH ₃) ₂)CH ₂ C≡CH
364	O	H	H	(CH(CH ₃) ₂)H-Cyclopentyl
365	O	H	H	N(CH(CH ₃) ₂)-Cyclohexyl
366	O	H	H	N(CH(CH ₃) ₂)-Phenyl
367	O	H	H	Morpholin-1-yl
368	O	H	H	Piperidin-1-yl
369	O	H	CH ₃	NH-SO ₂ CH ₃
370	O	H	CH ₃	NH-SO ₂ CH ₂ CH ₃
371	O	H	CH ₃	NH-SO ₂ CH ₂ CH ₂ CH ₃
372	O	H	CH ₃	NH-SO ₂ CH(CH ₃) ₂
373	O	H	CH ₃	NH-SO ₂ C(CH ₃) ₃
374	O	H	CH ₃	NH-SO ₂ CH ₂ Cl
375	O	H	CH ₃	NH-SO ₂ CH ₂ CH ₂ Cl
376	O	H	CH ₃	NH-SO ₂ CH ₂ CH ₂ OCH ₃
377	O	H	CH ₃	NH-SO ₂ CH ₂ CH ₂ SCH ₃
378	O	H	CH ₃	N(CH ₃)-SO ₂ CH ₃
379	O	H	CH ₃	N(CH ₃)-SO ₂ CH ₂ CH ₃
380	O	H	CH ₃	N(CH ₃)-SO ₂ CH ₂ CH ₂ CH ₃
381	O	H	CH ₃	N(CH ₃)-SO ₂ CH(CH ₃) ₂
382	O	H	CH ₃	N(CH ₃)-SO ₂ C(CH ₃) ₃
383	O	H	CH ₃	N(CH ₃)-SO ₂ CH ₂ Cl
384	O	H	CH ₃	N(CH ₃)-SO ₂ CH ₂ CH ₂ Cl
385	O	H	CH ₃	N(CH ₃)-SO ₂ CH ₂ CH ₂ OCH ₃
386	O	H	CH ₃	N(CH ₃)-SO ₂ CH ₂ CH ₂ SCH ₃
387	O	H	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₃
388	O	H	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₃
389	O	H	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ CH ₃
390	O	H	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH(CH ₃) ₂
391	O	H	CH ₃	N(CH ₂ CH ₃)-SO ₂ C(CH ₃) ₃
392	O	H	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ Cl
393	O	H	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ Cl
394	O	H	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ OCH ₃
395	O	H	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ SCH ₃
396	O	H	CH ₃	NH(CH ₃)
397	O	H	CH ₃	NHCH ₂ CH ₃

	(Y) _n	R ¹	R ²	R ⁴
398	O	H	CH ₃	NHCH ₂ CH ₂ CH ₃
399	O	H	CH ₃	NHCH(CH ₃) ₂
400	O	H	CH ₃	NHC(CH ₃) ₃
401	O	H	CH ₃	NHCH ₂ CH(CH ₃) ₂
402	O	H	CH ₃	NHCH(CH ₃)CH ₂ CH ₃
403	O	H	CH ₃	NHCH ₂ CH ₂ Cl
404	O	H	CH ₃	NHCH ₂ CH ₂ OCH ₃
405	O	H	CH ₃	NHCH ₂ CH ₂ SCH ₃
406	O	H	CH ₃	NHCH ₂ COOCH ₃
407	O	H	CH ₃	NHCH ₂ CONH ₂
408	O	H	CH ₃	NHCH ₂ CH=CH ₂
409	O	H	CH ₃	NHCH ₂ C≡CH
410	O	H	CH ₃	NH-Cyclopentyl
411	O	H	CH ₃	NH-Cyclohexyl
412	O	H	CH ₃	NH-Phenyl
413	O	H	CH ₃	N(CH ₃) ₂
414	O	H	CH ₃	N(CH ₃)CH ₂ CH ₃
415	O	H	CH ₃	N(CH ₃)CH(CH ₃) ₂
416	O	H	CH ₃	N(CH ₃)C(CH ₃) ₃
417	O	H	CH ₃	N(CH ₃)CH ₂ CH ₂ CH ₃
418	O	H	CH ₃	N(CH ₃)CH ₂ CH(CH ₃) ₂
419	O	H	CH ₃	N(CH ₃)CH(CH ₃)CH ₂ CH ₃
420	O	H	CH ₃	N(CH ₃)CH ₂ CH ₂ Cl
421	O	H	CH ₃	N(CH ₃)CH ₂ CH ₂ OCH ₃
422	O	H	CH ₃	N(CH ₃)CH ₂ CH ₂ SCH ₃
423	O	H	CH ₃	N(CH ₃)CH ₂ COOCH ₃
424	O	H	CH ₃	N(CH ₃)CH ₂ CONH ₂
425	O	H	CH ₃	N(CH ₃)CH ₂ CH=CH ₂
426	O	H	CH ₃	N(CH ₃)CH ₂ C≡CH
427	O	H	CH ₃	N(CH ₃)-Cyclopentyl
428	O	H	CH ₃	N(CH ₃)-Cyclohexyl
429	O	H	CH ₃	N(CH ₃)-Phenyl
430	O	H	CH ₃	N(CH ₂ CH ₃) ₂
431	O	H	CH ₃	N(CH ₂ CH ₃)CH(CH ₃) ₂
432	O	H	CH ₃	N(CH ₂ CH ₃)CH ₂ CH ₂ CH ₃
433	O	H	CH ₃	N(CH ₂ CH ₃)C(CH ₃) ₃
434	O	H	CH ₃	N(CH ₂ CH ₃)CH ₂ CH(CH ₃) ₂
435	O	H	CH ₃	N(CH ₂ CH ₃)CH(CH ₃)CH ₂ CH ₃
436	O	H	CH ₃	N(CH ₂ CH ₃)CH ₂ CH ₂ Cl
437	O	H	CH ₃	N(CH ₂ CH ₃)CH ₂ CH ₂ OCH ₃
438	O	H	CH ₃	N(CH ₂ CH ₃)CH ₂ CH ₂ SCH ₃
439	O	H	CH ₃	N(CH ₂ CH ₃)CH ₂ COOCH ₃
440	O	H	CH ₃	N(CH ₂ CH ₃)CH ₂ CONH ₂
441	O	H	CH ₃	N(CH ₂ CH ₃)CH ₂ CH=CH ₂
442	O	H	CH ₃	N(CH ₂ CH ₃)CH ₂ C≡CH
443	O	H	CH ₃	N(CH ₂ CH ₃)-Cyclopentyl
444	O	H	CH ₃	N(CH ₂ CH ₃)-Cyclohexyl
445	O	H	CH ₃	N(CH ₂ CH ₃)-Phenyl
446	O	H	CH ₃	N(CH(CH ₃) ₂) ₂
447	O	H	CH ₃	N(CH(CH ₃) ₂)CH ₂ CH(CH ₃) ₂

	(Y) _n	R ¹	R ²	R ⁴
448	O	H	CH ₃	N(CH(CH ₃) ₂)CH(CH ₃)CH ₂ CH ₃
449	O	H	CH ₃	N(CH(CH ₃) ₂)CH ₂ CH ₂ Cl
450	O	H	CH ₃	N(CH(CH ₃) ₂)CH ₂ CH ₂ OCH ₃
451	O	H	CH ₃	N(CH(CH ₃) ₂)CH ₂ CH ₂ SCH ₃
452	O	H	CH ₃	N(CH(CH ₃) ₂)CH ₂ COOCH ₃
453	O	H	CH ₃	N(CH(CH ₃) ₂)CH ₂ CONH ₂
454	O	H	CH ₃	N(CH(CH ₃) ₂)CH ₂ CH=CH ₂
455	O	H	CH ₃	N(CH(CH ₃) ₂)CH ₂ C≡CH
456	O	H	CH ₃	(CH(CH ₃) ₂)H-Cyclopentyl
457	O	H	CH ₃	N(CH(CH ₃) ₂)-Cyclohexyl
458	O	H	CH ₃	N(CH(CH ₃) ₂)-Phenyl
459	O	H	CH ₃	Morpholin-1-yl
460	O	H	CH ₃	Piperidin-1-yl
461	O	CH ₃	CH ₃	NH-SO ₂ CH ₃
462	O	CH ₃	CH ₃	NH-SO ₂ CH ₂ CH ₃
463	O	CH ₃	CH ₃	NH-SO ₂ CH ₂ CH ₂ CH ₃
464	O	CH ₃	CH ₃	NH-SO ₂ CH(CH ₃) ₂
465	O	CH ₃	CH ₃	NH-SO ₂ C(CH ₃) ₃
466	O	CH ₃	CH ₃	NH-SO ₂ CH ₂ Cl
467	O	CH ₃	CH ₃	NH-SO ₂ CH ₂ CH ₂ Cl
468	O	CH ₃	CH ₃	NH-SO ₂ CH ₂ CH ₂ OCH ₃
469	O	CH ₃	CH ₃	NH-SO ₂ CH ₂ CH ₂ SCH ₃
470	O	CH ₃	CH ₃	N(CH ₃)-SO ₂ CH ₃
471	O	CH ₃	CH ₃	N(CH ₃)-SO ₂ CH ₂ CH ₃
472	O	CH ₃	CH ₃	N(CH ₃)-SO ₂ CH ₂ CH ₂ CH ₃
473	O	CH ₃	CH ₃	N(CH ₃)-SO ₂ CH(CH ₃) ₂
474	O	CH ₃	CH ₃	N(CH ₃)-SO ₂ C(CH ₃) ₃
475	O	CH ₃	CH ₃	N(CH ₃)-SO ₂ CH ₂ Cl
476	O	CH ₃	CH ₃	N(CH ₃)-SO ₂ CH ₂ CH ₂ Cl
477	O	CH ₃	CH ₃	N(CH ₃)-SO ₂ CH ₂ CH ₂ OCH ₃
478	O	CH ₃	CH ₃	N(CH ₃)-SO ₂ CH ₂ CH ₂ SCH ₃
479	O	CH ₃	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₃
480	O	CH ₃	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₃
481	O	CH ₃	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH(CH ₃) ₂
482	O	CH ₃	CH ₃	N(CH ₂ CH ₃)-SO ₂ C(CH ₃) ₃
483	O	CH ₃	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ Cl
484	O	CH ₃	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ Cl
485	O	CH ₃	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ OCH ₃
486	O	CH ₃	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ SCH ₃
487	O	CH ₃	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ SCH ₃
488	O	CH ₃	CH ₃	NH(CH ₃)
489	O	CH ₃	CH ₃	NHCH ₂ CH ₃
490	O	CH ₃	CH ₃	NHCH ₂ CH ₂ CH ₃
491	O	CH ₃	CH ₃	NHCH(CH ₃) ₂
492	O	CH ₃	CH ₃	NHC(CH ₃) ₃
493	O	CH ₃	CH ₃	NHCH ₂ CH(CH ₃) ₂
494	O	CH ₃	CH ₃	NHCH(CH ₃)CH ₂ CH ₃
495	O	CH ₃	CH ₃	NHCH ₂ CH ₂ Cl
496	O	CH ₃	CH ₃	NHCH ₂ CH ₂ OCH ₃
497	O	CH ₃	CH ₃	NHCH ₂ CH ₂ SCH ₃

	(Y) _n	R ¹	R ²	R ⁴
498	O	CH ₃	CH ₃	NHCH ₂ COOCH ₃
499	O	CH ₃	CH ₃	NHCH ₂ CONH ₂
500	O	CH ₃	CH ₃	NHCH ₂ CH=CH ₂
501	O	CH ₃	CH ₃	NHCH ₂ C≡CH
502	O	CH ₃	CH ₃	NH-Cyclopentyl
503	O	CH ₃	CH ₃	NH-Cyclohexyl
504	O	CH ₃	CH ₃	NH-Phenyl
505	O	CH ₃	CH ₃	N(CH ₃) ₂
506	O	CH ₃	CH ₃	N(CH ₃)CH ₂ CH ₃
507	O	CH ₃	CH ₃	N(CH ₃)CH(CH ₃) ₂
508	O	CH ₃	CH ₃	N(CH ₃)C(CH ₃) ₃
509	O	CH ₃	CH ₃	N(CH ₃)CH ₂ CH ₂ CH ₃
510	O	CH ₃	CH ₃	N(CH ₃)CH ₂ CH(CH ₃) ₂
511	O	CH ₃	CH ₃	N(CH ₃)CH(CH ₃)CH ₂ CH ₃
512	O	CH ₃	CH ₃	N(CH ₃)CH ₂ CH ₂ Cl
513	O	CH ₃	CH ₃	N(CH ₃)CH ₂ CH ₂ OCH ₃
514	O	CH ₃	CH ₃	N(CH ₃)CH ₂ CH ₂ SCH ₃
515	O	CH ₃	CH ₃	N(CH ₃)CH ₂ COOCH ₃
516	O	CH ₃	CH ₃	N(CH ₃)CH ₂ CONH ₂
517	O	CH ₃	CH ₃	N(CH ₃)CH ₂ CH=CH ₂
518	O	CH ₃	CH ₃	N(CH ₃)CH ₂ C≡CH
519	O	CH ₃	CH ₃	N(CH ₃)-Cyclopentyl
520	O	CH ₃	CH ₃	N(CH ₃)-Cyclohexyl
521	O	CH ₃	CH ₃	N(CH ₃)-Phenyl
522	O	CH ₃	CH ₃	N(CH ₂ CH ₃) ₂
523	O	CH ₃	CH ₃	N(CH ₂ CH ₃)CH(CH ₃) ₂
524	O	CH ₃	CH ₃	N(CH ₂ CH ₃)CH ₂ CH ₂ CH ₃
525	O	CH ₃	CH ₃	N(CH ₂ CH ₃)C(CH ₃) ₃
526	O	CH ₃	CH ₃	N(CH ₂ CH ₃)CH ₂ CH(CH ₃) ₂
527	O	CH ₃	CH ₃	N(CH ₂ CH ₃)CH(CH ₃)CH ₂ CH ₃
528	O	CH ₃	CH ₃	N(CH ₂ CH ₃)CH ₂ CH ₂ Cl
529	O	CH ₃	CH ₃	N(CH ₂ CH ₃)CH ₂ CH ₂ OCH ₃
530	O	CH ₃	CH ₃	N(CH ₂ CH ₃)CH ₂ CH ₂ SCH ₃
531	O	CH ₃	CH ₃	N(CH ₂ CH ₃)CH ₂ COOCH ₃
532	O	CH ₃	CH ₃	N(CH ₂ CH ₃)CH ₂ CONH ₂
533	O	CH ₃	CH ₃	N(CH ₂ CH ₃)CH ₂ CH=CH ₂
534	O	CH ₃	CH ₃	N(CH ₂ CH ₃)CH ₂ C≡CH
535	O	CH ₃	CH ₃	N(CH ₂ CH ₃)-Cyclopentyl
536	O	CH ₃	CH ₃	N(CH ₂ CH ₃)-Cyclohexyl
537	O	CH ₃	CH ₃	N(CH ₂ CH ₃)-Phenyl
538	O	CH ₃	CH ₃	N(CH(CH ₃) ₂) ₂
539	O	CH ₃	CH ₃	N(CH(CH ₃) ₂)CH ₂ CH(CH ₃) ₂
540	O	CH ₃	CH ₃	N(CH(CH ₃) ₂)CH(CH ₃)CH ₂ CH ₃
541	O	CH ₃	CH ₃	N(CH(CH ₃) ₂)CH ₂ CH ₂ Cl
542	O	CH ₃	CH ₃	N(CH(CH ₃) ₂)CH ₂ CH ₂ OCH ₃
543	O	CH ₃	CH ₃	N(CH(CH ₃) ₂)CH ₂ CH ₂ SCH ₃
544	O	CH ₃	CH ₃	N(CH(CH ₃) ₂)CH ₂ COOCH ₃
545	O	CH ₃	CH ₃	N(CH(CH ₃) ₂)CH ₂ CONH ₂
546	O	CH ₃	CH ₃	N(CH(CH ₃) ₂)CH ₂ CH=CH ₂
547	O	CH ₃	CH ₃	N(CH(CH ₃) ₂)CH ₂ C≡CH

	(Y) _n	R ¹	R ²	R ⁴
548	O	CH ₃	CH ₃	(CH(CH ₃) ₂)H-Cyclopentyl
549	O	CH ₃	CH ₃	N(CH(CH ₃) ₂)-Cyclohexyl
550	O	CH ₃	CH ₃	N(CH(CH ₃) ₂)-Phenyl
551	O	CH ₃	CH ₃	Morpholin-1-yl
552	O	CH ₃	CH ₃	Piperidin-1-yl
553	S	H	H	NH-SO ₂ CH ₃
554	S	H	H	NH-SO ₂ CH ₂ CH ₃
555	S	H	H	NH-SO ₂ CH ₂ CH ₂ CH ₃
556	S	H	H	NH-SO ₂ CH(CH ₃) ₂
557	S	H	H	NH-SO ₂ C(CH ₃) ₃
558	S	H	H	NH-SO ₂ CH ₂ Cl
559	S	H	H	NH-SO ₂ CH ₂ CH ₂ Cl
560	S	H	H	NH-SO ₂ CH ₂ CH ₂ OCH ₃
561	S	H	H	NH-SO ₂ CH ₂ CH ₂ SCH ₃
562	S	H	H	N(CH ₃)-SO ₂ CH ₃
563	S	H	H	N(CH ₃)-SO ₂ CH ₂ CH ₃
564	S	H	H	N(CH ₃)-SO ₂ CH ₂ CH ₂ CH ₃
565	S	H	H	N(CH ₃)-SO ₂ CH(CH ₃) ₂
566	S	H	H	N(CH ₃)-SO ₂ C(CH ₃) ₃
567	S	H	H	N(CH ₃)-SO ₂ CH ₂ Cl
568	S	H	H	N(CH ₃)-SO ₂ CH ₂ CH ₂ Cl
569	S	H	H	N(CH ₃)-SO ₂ CH ₂ CH ₂ OCH ₃
570	S	H	H	N(CH ₃)-SO ₂ CH ₂ CH ₂ SCH ₃
571	S	H	H	N(CH ₂ CH ₃)-SO ₂ CH ₃
572	S	H	H	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₃
573	S	H	H	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ CH ₃
574	S	H	H	N(CH ₂ CH ₃)-SO ₂ CH(CH ₃) ₂
575	S	H	H	N(CH ₂ CH ₃)-SO ₂ C(CH ₃) ₃
576	S	H	H	N(CH ₂ CH ₃)-SO ₂ CH ₂ Cl
577	S	H	H	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ Cl
578	S	H	H	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ OCH ₃
579	S	H	H	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ SCH ₃
580	S	H	H	NH(CH ₃)
581	S	H	H	NHCH ₂ CH ₃
582	S	H	H	NHCH ₂ CH ₂ CH ₃
583	S	H	H	NHCH(CH ₃) ₂
584	S	H	H	NHC(CH ₃) ₃
585	S	H	H	NHCH ₂ CH(CH ₃) ₂
586	S	H	H	NHCH(CH ₃)CH ₂ CH ₃
587	S	H	H	NHCH ₂ CH ₂ Cl
588	S	H	H	NHCH ₂ CH ₂ OCH ₃
589	S	H	H	NHCH ₂ CH ₂ SCH ₃
590	S	H	H	NHCH ₂ COOCH ₃
591	S	H	H	NHCH ₂ CONH ₂
592	S	H	H	NHCH ₂ CH=CH ₂
593	S	H	H	NHCH ₂ C≡CH
594	S	H	H	NH-Cyclopentyl
595	S	H	H	NH-Cyclohexyl
596	S	H	H	NH-Phenyl
597	S	H	H	N(CH ₃) ₂

	(Y) _n	R ¹	R ²	R ⁴
598	S	H	H	N(CH ₃)CH ₂ CH ₃
599	S	H	H	N(CH ₃)CH(CH ₃) ₂
600	S	H	H	N(CH ₃)C(CH ₃) ₃
601	S	H	H	N(CH ₃)CH ₂ CH ₂ CH ₃
602	S	H	H	N(CH ₃)CH ₂ CH(CH ₃) ₂
603	S	H	H	N(CH ₃)CH(CH ₃)CH ₂ CH ₃
604	S	H	H	N(CH ₃)CH ₂ CH ₂ Cl
605	S	H	H	N(CH ₃)CH ₂ CH ₂ OCH ₃
606	S	H	H	N(CH ₃)CH ₂ CH ₂ SCH ₃
607	S	H	H	N(CH ₃)CH ₂ COOCH ₃
608	S	H	H	N(CH ₃)CH ₂ CONH ₂
609	S	H	H	N(CH ₃)CH ₂ CH=CH ₂
610	S	H	H	N(CH ₃)CH ₂ C≡CH
611	S	H	H	N(CH ₃)-Cyclopentyl
612	S	H	H	N(CH ₃)-Cyclohexyl
613	S	H	H	N(CH ₃)-Phenyl
614	S	H	H	N(CH ₂ CH ₃) ₂
615	S	H	H	N(CH ₂ CH ₃)CH(CH ₃) ₂
616	S	H	H	N(CH ₂ CH ₃)CH ₂ CH ₂ CH ₃
617	S	H	H	N(CH ₂ CH ₃)C(CH ₃) ₃
618	S	H	H	N(CH ₂ CH ₃)CH ₂ CH(CH ₃) ₂
619	S	H	H	N(CH ₂ CH ₃)CH(CH ₃)CH ₂ CH ₃
620	S	H	H	N(CH ₂ CH ₃)CH ₂ CH ₂ Cl
621	S	H	H	N(CH ₂ CH ₃)CH ₂ CH ₂ OCH ₃
622	S	H	H	N(CH ₂ CH ₃)CH ₂ CH ₂ SCH ₃
623	S	H	H	N(CH ₂ CH ₃)CH ₂ COOCH ₃
624	S	H	H	N(CH ₂ CH ₃)CH ₂ CONH ₂
625	S	H	H	N(CH ₂ CH ₃)CH ₂ CH=CH ₂
626	S	H	H	N(CH ₂ CH ₃)CH ₂ C≡CH
627	S	H	H	N(CH ₂ CH ₃)-Cyclopentyl
628	S	H	H	N(CH ₂ CH ₃)-Cyclohexyl
629	S	H	H	N(CH ₂ CH ₃)-Phenyl
630	S	H	H	N(CH(CH ₃) ₂) ₂
631	S	H	H	N(CH(CH ₃) ₂)CH ₂ CH(CH ₃) ₂
632	S	H	H	N(CH(CH ₃) ₂)CH(CH ₃)CH ₂ CH ₃
633	S	H	H	N(CH(CH ₃) ₂)CH ₂ CH ₂ Cl
634	S	H	H	N(CH(CH ₃) ₂)CH ₂ CH ₂ OCH ₃
635	S	H	H	N(CH(CH ₃) ₂)CH ₂ CH ₂ SCH ₃
636	S	H	H	N(CH(CH ₃) ₂)CH ₂ COOCH ₃
637	S	H	H	N(CH(CH ₃) ₂)CH ₂ CONH ₂
638	S	H	H	N(CH(CH ₃) ₂)CH ₂ CH=CH ₂
639	S	H	H	N(CH(CH ₃) ₂)CH ₂ C≡CH
640	S	H	H	(CH(CH ₃) ₂)H-Cyclopentyl
641	S	H	H	N(CH(CH ₃) ₂)-Cyclohexyl
642	S	H	H	N(CH(CH ₃) ₂)-Phenyl
643	S	H	H	Morpholin-1-yl
644	S	H	H	Piperidin-1-yl
645	S	H	CH ₃	NH-SO ₂ CH ₃
646	S	H	CH ₃	NH-SO ₂ CH ₂ CH ₃
647	S	H	CH ₃	NH-SO ₂ CH ₂ CH ₂ CH ₃

	(Y) _n	R ¹	R ²	R ⁴
648	S	H	CH ₃	NH-SO ₂ CH(CH ₃) ₂
649	S	H	CH ₃	NH-SO ₂ C(CH ₃) ₃
650	S	H	CH ₃	NH-SO ₂ CH ₂ Cl
651	S	H	CH ₃	NH-SO ₂ CH ₂ CH ₂ Cl
652	S	H	CH ₃	NH-SO ₂ CH ₂ CH ₂ OCH ₃
653	S	H	CH ₃	NH-SO ₂ CH ₂ CH ₂ SCH ₃
654	S	H	CH ₃	N(CH ₃)-SO ₂ CH ₃
655	S	H	CH ₃	N(CH ₃)-SO ₂ CH ₂ CH ₃
656	S	H	CH ₃	N(CH ₃)-SO ₂ CH ₂ CH ₂ CH ₃
657	S	H	CH ₃	N(CH ₃)-SO ₂ CH(CH ₃) ₂
658	S	H	CH ₃	N(CH ₃)-SO ₂ C(CH ₃) ₃
659	S	H	CH ₃	N(CH ₃)-SO ₂ CH ₂ Cl
660	S	H	CH ₃	N(CH ₃)-SO ₂ CH ₂ CH ₂ Cl
661	S	H	CH ₃	N(CH ₃)-SO ₂ CH ₂ CH ₂ OCH ₃
662	S	H	CH ₃	N(CH ₃)-SO ₂ CH ₂ CH ₂ SCH ₃
663	S	H	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₃
664	S	H	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₃
665	S	H	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ CH ₃
666	S	H	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH(CH ₃) ₂
667	S	H	CH ₃	N(CH ₂ CH ₃)-SO ₂ C(CH ₃) ₃
668	S	H	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ Cl
669	S	H	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ Cl
670	S	H	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ OCH ₃
671	S	H	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ SCH ₃
672	S	H	CH ₃	NH(CH ₃)
673	S	H	CH ₃	NHCH ₂ CH ₃
674	S	H	CH ₃	NHCH ₂ CH ₂ CH ₃
675	S	H	CH ₃	NHCH(CH ₃) ₂
676	S	H	CH ₃	NHC(CH ₃) ₃
677	S	H	CH ₃	NHCH ₂ CH(CH ₃) ₂
678	S	H	CH ₃	NHCH(CH ₃)CH ₂ CH ₃
679	S	H	CH ₃	NHCH ₂ CH ₂ Cl
680	S	H	CH ₃	NHCH ₂ CH ₂ OCH ₃
681	S	H	CH ₃	NHCH ₂ CH ₂ SCH ₃
682	S	H	CH ₃	NHCH ₂ COOCH ₃
683	S	H	CH ₃	NHCH ₂ CONH ₂
684	S	H	CH ₃	NHCH ₂ CH=CH ₂
685	S	H	CH ₃	NHCH ₂ C≡CH
686	S	H	CH ₃	NH-Cyclopentyl
687	S	H	CH ₃	NH-Cyclohexyl
688	S	H	CH ₃	NH-Phenyl
689	S	H	CH ₃	N(CH ₃) ₂
690	S	H	CH ₃	N(CH ₃)CH ₂ CH ₃
691	S	H	CH ₃	N(CH ₃)CH(CH ₃) ₂
692	S	H	CH ₃	N(CH ₃)C(CH ₃) ₃
693	S	H	CH ₃	N(CH ₃)CH ₂ CH ₂ CH ₃
694	S	H	CH ₃	N(CH ₃)CH ₂ CH(CH ₃) ₂
695	S	H	CH ₃	N(CH ₃)CH(CH ₃)CH ₂ CH ₃
696	S	H	CH ₃	N(CH ₃)CH ₂ CH ₂ Cl
697	S	H	CH ₃	N(CH ₃)CH ₂ CH ₂ OCH ₃

	(Y) _n	R ¹	R ²	R ⁴
698	S	H	CH ₃	N(CH ₃)CH ₂ CH ₂ SCH ₃
699	S	H	CH ₃	N(CH ₃)CH ₂ COOCH ₃
700	S	H	CH ₃	N(CH ₃)CH ₂ CONH ₂
701	S	H	CH ₃	N(CH ₃)CH ₂ CH=CH ₂
702	S	H	CH ₃	N(CH ₃)CH ₂ C≡CH
703	S	H	CH ₃	N(CH ₃)-Cyclopentyl
704	S	H	CH ₃	N(CH ₃)-Cyclohexyl
705	S	H	CH ₃	N(CH ₃)-Phenyl
706	S	H	CH ₃	N(CH ₂ CH ₃) ₂
707	S	H	CH ₃	N(CH ₂ CH ₃)CH(CH ₃) ₂
708	S	H	CH ₃	N(CH ₂ CH ₃)CH ₂ CH ₂ CH ₃
709	S	H	CH ₃	N(CH ₂ CH ₃)C(CH ₃) ₃
710	S	H	CH ₃	N(CH ₂ CH ₃)CH ₂ CH(CH ₃) ₂
711	S	H	CH ₃	N(CH ₂ CH ₃)CH(CH ₃)CH ₂ CH ₃
712	S	H	CH ₃	N(CH ₂ CH ₃)CH ₂ CH ₂ Cl
713	S	H	CH ₃	N(CH ₂ CH ₃)CH ₂ CH ₂ OCH ₃
714	S	H	CH ₃	N(CH ₂ CH ₃)CH ₂ CH ₂ SCH ₃
715	S	H	CH ₃	N(CH ₂ CH ₃)CH ₂ COOCH ₃
716	S	H	CH ₃	N(CH ₂ CH ₃)CH ₂ CONH ₂
717	S	H	CH ₃	N(CH ₂ CH ₃)CH ₂ CH=CH ₂
718	S	H	CH ₃	N(CH ₂ CH ₃)CH ₂ C≡CH
719	S	H	CH ₃	N(CH ₂ CH ₃)-Cyclopentyl
720	S	H	CH ₃	N(CH ₂ CH ₃)-Cyclohexyl
721	S	H	CH ₃	N(CH ₂ CH ₃)-Phenyl
722	S	H	CH ₃	N(CH(CH ₃) ₂) ₂
723	S	H	CH ₃	N(CH(CH ₃) ₂)CH ₂ CH(CH ₃) ₂
724	S	H	CH ₃	N(CH(CH ₃) ₂)CH(CH ₃)CH ₂ CH ₃
725	S	H	CH ₃	N(CH(CH ₃) ₂)CH ₂ CH ₂ Cl
726	S	H	CH ₃	N(CH(CH ₃) ₂)CH ₂ CH ₂ OCH ₃
727	S	H	CH ₃	N(CH(CH ₃) ₂)CH ₂ CH ₂ SCH ₃
728	S	H	CH ₃	N(CH(CH ₃) ₂)CH ₂ COOCH ₃
729	S	H	CH ₃	N(CH(CH ₃) ₂)CH ₂ CONH ₂
730	S	H	CH ₃	N(CH(CH ₃) ₂)CH ₂ CH=CH ₂
731	S	H	CH ₃	N(CH(CH ₃) ₂)CH ₂ C≡CH
732	S	H	CH ₃	(CH(CH ₃) ₂)H-Cyclopentyl
733	S	H	CH ₃	N(CH(CH ₃) ₂)-Cyclohexyl
734	S	H	CH ₃	N(CH(CH ₃) ₂)-Phenyl
735	S	H	CH ₃	Morpholin-1-yl
736	S	H	CH ₃	Piperidin-1-yl
737	S	CH ₃	CH ₃	NH-SO ₂ CH ₃
738	S	CH ₃	CH ₃	NH-SO ₂ CH ₂ CH ₃
739	S	CH ₃	CH ₃	NH-SO ₂ CH ₂ CH ₂ CH ₃
740	S	CH ₃	CH ₃	NH-SO ₂ CH(CH ₃) ₂
741	S	CH ₃	CH ₃	NH-SO ₂ C(CH ₃) ₃
742	S	CH ₃	CH ₃	NH-SO ₂ CH ₂ Cl
743	S	CH ₃	CH ₃	NH-SO ₂ CH ₂ CH ₂ Cl
744	S	CH ₃	CH ₃	NH-SO ₂ CH ₂ CH ₂ OCH ₃
745	S	CH ₃	CH ₃	NH-SO ₂ CH ₂ CH ₂ SCH ₃
746	S	CH ₃	CH ₃	N(CH ₃)-SO ₂ CH ₃
747	S	CH ₃	CH ₃	N(CH ₃)-SO ₂ CH ₂ CH ₃

	(Y) _n	R ¹	R ²	R ⁴
748	S	CH ₃	CH ₃	N(CH ₃)-SO ₂ CH ₂ CH ₂ CH ₃
749	S	CH ₃	CH ₃	N(CH ₃)-SO ₂ CH(CH ₃) ₂
750	S	CH ₃	CH ₃	N(CH ₃)-SO ₂ C(CH ₃) ₃
751	S	CH ₃	CH ₃	N(CH ₃)-SO ₂ CH ₂ Cl
752	S	CH ₃	CH ₃	N(CH ₃)-SO ₂ CH ₂ CH ₂ Cl
753	S	CH ₃	CH ₃	N(CH ₃)-SO ₂ CH ₂ CH ₂ OCH ₃
754	S	CH ₃	CH ₃	N(CH ₃)-SO ₂ CH ₂ CH ₂ SCH ₃
755	S	CH ₃	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₃
756	S	CH ₃	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₃
757	S	CH ₃	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ CH ₃
758	S	CH ₃	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH(CH ₃) ₂
759	S	CH ₃	CH ₃	N(CH ₂ CH ₃)-SO ₂ C(CH ₃) ₃
760	S	CH ₃	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ Cl
761	S	CH ₃	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ Cl
762	S	CH ₃	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ OCH ₃
763	S	CH ₃	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ SCH ₃
764	S	CH ₃	CH ₃	NH(CH ₃)
765	S	CH ₃	CH ₃	NHCH ₂ CH ₃
766	S	CH ₃	CH ₃	NHCH ₂ CH ₂ CH ₃
767	S	CH ₃	CH ₃	NHCH(CH ₃) ₂
768	S	CH ₃	CH ₃	NHC(CH ₃) ₃
769	S	CH ₃	CH ₃	NHCH ₂ CH(CH ₃) ₂
770	S	CH ₃	CH ₃	NHCH(CH ₃)CH ₂ CH ₃
771	S	CH ₃	CH ₃	NHCH ₂ CH ₂ Cl
772	S	CH ₃	CH ₃	NHCH ₂ CH ₂ OCH ₃
773	S	CH ₃	CH ₃	NHCH ₂ CH ₂ SCH ₃
774	S	CH ₃	CH ₃	NHCH ₂ COOCH ₃
775	S	CH ₃	CH ₃	NHCH ₂ CONH ₂
776	S	CH ₃	CH ₃	NHCH ₂ CH=CH ₂
777	S	CH ₃	CH ₃	NHCH ₂ C≡CH
778	S	CH ₃	CH ₃	NH-Cyclopentyl
779	S	CH ₃	CH ₃	NH-Cyclohexyl
780	S	CH ₃	CH ₃	NH-Phenyl
781	S	CH ₃	CH ₃	N(CH ₃) ₂
782	S	CH ₃	CH ₃	N(CH ₃)CH ₂ CH ₃
783	S	CH ₃	CH ₃	N(CH ₃)CH(CH ₃) ₂
784	S	CH ₃	CH ₃	N(CH ₃)C(CH ₃) ₃
785	S	CH ₃	CH ₃	N(CH ₃)CH ₂ CH ₂ CH ₃
786	S	CH ₃	CH ₃	N(CH ₃)CH ₂ CH(CH ₃) ₂
787	S	CH ₃	CH ₃	N(CH ₃)CH(CH ₃)CH ₂ CH ₃
788	S	CH ₃	CH ₃	N(CH ₃)CH ₂ CH ₂ Cl
789	S	CH ₃	CH ₃	N(CH ₃)CH ₂ CH ₂ OCH ₃
790	S	CH ₃	CH ₃	N(CH ₃)CH ₂ CH ₂ SCH ₃
791	S	CH ₃	CH ₃	N(CH ₃)CH ₂ COOCH ₃
792	S	CH ₃	CH ₃	N(CH ₃)CH ₂ CONH ₂
793	S	CH ₃	CH ₃	N(CH ₃)CH ₂ CH=CH ₂
794	S	CH ₃	CH ₃	N(CH ₃)CH ₂ C≡CH
795	S	CH ₃	CH ₃	N(CH ₃)-Cyclopentyl
796	S	CH ₃	CH ₃	N(CH ₃)-Cyclohexyl
797	S	CH ₃	CH ₃	N(CH ₃)-Phenyl

	(Y) _n	R ¹	R ²	R ⁴
798	S	CH ₃	CH ₃	N(CH ₂ CH ₃) ₂
799	S	CH ₃	CH ₃	N(CH ₂ CH ₃)CH(CH ₃) ₂
800	S	CH ₃	CH ₃	N(CH ₂ CH ₃)CH ₂ CH ₂ CH ₃
801	S	CH ₃	CH ₃	N(CH ₂ CH ₃)C(CH ₃) ₃
802	S	CH ₃	CH ₃	N(CH ₂ CH ₃)CH ₂ CH(CH ₃) ₂
803	S	CH ₃	CH ₃	N(CH ₂ CH ₃)CH(CH ₃)CH ₂ CH ₃
804	S	CH ₃	CH ₃	N(CH ₂ CH ₃)CH ₂ CH ₂ Cl
805	S	CH ₃	CH ₃	N(CH ₂ CH ₃)CH ₂ CH ₂ OCH ₃
806	S	CH ₃	CH ₃	N(CH ₂ CH ₃)CH ₂ CH ₂ SCH ₃
807	S	CH ₃	CH ₃	N(CH ₂ CH ₃)CH ₂ COOCH ₃
808	S	CH ₃	CH ₃	N(CH ₂ CH ₃)CH ₂ CONH ₂
809	S	CH ₃	CH ₃	N(CH ₂ CH ₃)CH ₂ CH=CH ₂
810	S	CH ₃	CH ₃	N(CH ₂ CH ₃)CH ₂ C≡CH
811	S	CH ₃	CH ₃	N(CH ₂ CH ₃)-Cyclopentyl
812	S	CH ₃	CH ₃	N(CH ₂ CH ₃)-Cyclohexyl
813	S	CH ₃	CH ₃	N(CH ₂ CH ₃)-Phenyl
814	S	CH ₃	CH ₃	N(CH(CH ₃) ₂) ₂
815	S	CH ₃	CH ₃	N(CH(CH ₃) ₂)CH ₂ CH(CH ₃) ₂
816	S	CH ₃	CH ₃	N(CH(CH ₃) ₂)CH(CH ₃)CH ₂ CH ₃
817	S	CH ₃	CH ₃	N(CH(CH ₃) ₂)CH ₂ CH ₂ Cl
818	S	CH ₃	CH ₃	N(CH(CH ₃) ₂)CH ₂ CH ₂ OCH ₃
819	S	CH ₃	CH ₃	N(CH(CH ₃) ₂)CH ₂ CH ₂ SCH ₃
820	S	CH ₃	CH ₃	N(CH(CH ₃) ₂)CH ₂ COOCH ₃
821	S	CH ₃	CH ₃	N(CH(CH ₃) ₂)CH ₂ CONH ₂
822	S	CH ₃	CH ₃	N(CH(CH ₃) ₂)CH ₂ CH=CH ₂
823	S	CH ₃	CH ₃	N(CH(CH ₃) ₂)CH ₂ C≡CH
824	S	CH ₃	CH ₃	(CH(CH ₃) ₂)H-Cyclopentyl
825	S	CH ₃	CH ₃	N(CH(CH ₃) ₂)-Cyclohexyl
826	S	CH ₃	CH ₃	N(CH(CH ₃) ₂)-Phenyl
827	S	CH ₃	CH ₃	Morpholin-1-yl
828	S	CH ₃	CH ₃	Piperidin-1-yl
829	NH	H	H	NH-SO ₂ CH ₃
830	NH	H	H	NH-SO ₂ CH ₂ CH ₃
831	NH	H	H	NH-SO ₂ CH ₂ CH ₂ CH ₃
832	NH	H	H	NH-SO ₂ CH(CH ₃) ₂
833	NH	H	H	NH-SO ₂ C(CH ₃) ₃
834	NH	H	H	NH-SO ₂ CH ₂ Cl
835	NH	H	H	NH-SO ₂ CH ₂ CH ₂ Cl
836	NH	H	H	NH-SO ₂ CH ₂ CH ₂ OCH ₃
837	NH	H	H	NH-SO ₂ CH ₂ CH ₂ SCH ₃
838	NH	H	H	N(CH ₃)-SO ₂ CH ₃
839	NH	H	H	N(CH ₃)-SO ₂ CH ₂ CH ₃
840	NH	H	H	N(CH ₃)-SO ₂ CH ₂ CH ₂ CH ₃
841	NH	H	H	N(CH ₃)-SO ₂ CH(CH ₃) ₂
842	NH	H	H	N(CH ₃)-SO ₂ C(CH ₃) ₃
843	NH	H	H	N(CH ₃)-SO ₂ CH ₂ Cl
844	NH	H	H	N(CH ₃)-SO ₂ CH ₂ CH ₂ Cl
845	NH	H	H	N(CH ₃)-SO ₂ CH ₂ CH ₂ OCH ₃
846	NH	H	H	N(CH ₃)-SO ₂ CH ₂ CH ₂ SCH ₃
847	NH	H	H	N(CH ₂ CH ₃)-SO ₂ CH ₃

	(Y) _n	R ¹	R ²	R ⁴
848	NH	H	H	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₃
849	NH	H	H	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ CH ₃
850	NH	H	H	N(CH ₂ CH ₃)-SO ₂ CH(CH ₃) ₂
851	NH	H	H	N(CH ₂ CH ₃)-SO ₂ C(CH ₃) ₃
852	NH	H	H	N(CH ₂ CH ₃)-SO ₂ CH ₂ Cl
853	NH	H	H	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ Cl
854	NH	H	H	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ OCH ₃
855	NH	H	H	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ SCH ₃
856	NH	H	H	NH(CH ₃)
857	NH	H	H	NHCH ₂ CH ₃
858	NH	H	H	NHCH ₂ CH ₂ CH ₃
859	NH	H	H	NHCH(CH ₃) ₂
860	NH	H	H	NHC(CH ₃) ₃
861	NH	H	H	NHCH ₂ CH(CH ₃) ₂
862	NH	H	H	NHCH(CH ₃)CH ₂ CH ₃
863	NH	H	H	NHCH ₂ CH ₂ Cl
864	NH	H	H	NHCH ₂ CH ₂ OCH ₃
865	NH	H	H	NHCH ₂ CH ₂ SCH ₃
866	NH	H	H	NHCH ₂ COOCH ₃
867	NH	H	H	NHCH ₂ CONH ₂
868	NH	H	H	NHCH ₂ CH=CH ₂
869	NH	H	H	NHCH ₂ C≡CH
870	NH	H	H	NH-Cyclopentyl
871	NH	H	H	NH-Cyclohexyl
872	NH	H	H	NH-Phenyl
873	NH	H	H	N(CH ₃) ₂
874	NH	H	H	N(CH ₃)CH ₂ CH ₃
875	NH	H	H	N(CH ₃)CH(CH ₃) ₂
876	NH	H	H	N(CH ₃)C(CH ₃) ₃
877	NH	H	H	N(CH ₃)CH ₂ CH ₂ CH ₃
878	NH	H	H	N(CH ₃)CH ₂ CH(CH ₃) ₂
879	NH	H	H	N(CH ₃)CH(CH ₃)CH ₂ CH ₃
880	NH	H	H	N(CH ₃)CH ₂ CH ₂ Cl
881	NH	H	H	N(CH ₃)CH ₂ CH ₂ OCH ₃
882	NH	H	H	N(CH ₃)CH ₂ CH ₂ SCH ₃
883	NH	H	H	N(CH ₃)CH ₂ COOCH ₃
884	NH	H	H	N(CH ₃)CH ₂ CONH ₂
885	NH	H	H	N(CH ₃)CH ₂ CH=CH ₂
886	NH	H	H	N(CH ₃)CH ₂ C≡CH
887	NH	H	H	N(CH ₃)-Cyclopentyl
888	NH	H	H	N(CH ₃)-Cyclohexyl
889	NH	H	H	N(CH ₃)-Phenyl
890	NH	H	H	N(CH ₂ CH ₃) ₂
891	NH	H	H	N(CH ₂ CH ₃)CH(CH ₃) ₂
892	NH	H	H	N(CH ₂ CH ₃)CH ₂ CH ₂ CH ₃
893	NH	H	H	N(CH ₂ CH ₃)C(CH ₃) ₃
894	NH	H	H	N(CH ₂ CH ₃)CH ₂ CH(CH ₃) ₂
895	NH	H	H	N(CH ₂ CH ₃)CH(CH ₃)CH ₂ CH ₃
896	NH	H	H	N(CH ₂ CH ₃)CH ₂ CH ₂ Cl
897	NH	H	H	N(CH ₂ CH ₃)CH ₂ CH ₂ OCH ₃

	(Y) _n	R ¹	R ²	R ⁴
898	NH	H	H	N(CH ₂ CH ₃)CH ₂ CH ₂ SCH ₃
899	NH	H	H	N(CH ₂ CH ₃)CH ₂ COOCH ₃
900	NH	H	H	N(CH ₂ CH ₃)CH ₂ CONH ₂
901	NH	H	H	N(CH ₂ CH ₃)CH ₂ CH=CH ₂
902	NH	H	H	N(CH ₂ CH ₃)CH ₂ C≡CH
903	NH	H	H	N(CH ₂ CH ₃)-Cyclopentyl
904	NH	H	H	N(CH ₂ CH ₃)-Cyclohexyl
905	NH	H	H	N(CH ₂ CH ₃)-Phenyl
906	NH	H	H	N(CH(CH ₃) ₂) ₂
907	NH	H	H	N(CH(CH ₃) ₂)CH ₂ CH(CH ₃) ₂
908	NH	H	H	N(CH(CH ₃) ₂)CH(CH ₃)CH ₂ CH ₃
909	NH	H	H	N(CH(CH ₃) ₂)CH ₂ CH ₂ Cl
910	NH	H	H	N(CH(CH ₃) ₂)CH ₂ CH ₂ OCH ₃
911	NH	H	H	N(CH(CH ₃) ₂)CH ₂ CH ₂ SCH ₃
912	NH	H	H	N(CH(CH ₃) ₂)CH ₂ COOCH ₃
913	NH	H	H	N(CH(CH ₃) ₂)CH ₂ CONH ₂
914	NH	H	H	N(CH(CH ₃) ₂)CH ₂ CH=CH ₂
915	NH	H	H	N(CH(CH ₃) ₂)CH ₂ C≡CH
916	NH	H	H	(CH(CH ₃) ₂)H-Cyclopentyl
917	NH	H	H	N(CH(CH ₃) ₂)-Cyclohexyl
918	NH	H	H	N(CH(CH ₃) ₂)-Phenyl
919	NH	H	H	Morpholin-1-yl
920	NH	H	H	Piperidin-1-yl
921	NH	H	CH ₃	NH-SO ₂ CH ₃
922	NH	H	CH ₃	NH-SO ₂ CH ₂ CH ₃
923	NH	H	CH ₃	NH-SO ₂ CH ₂ CH ₂ CH ₃
924	NH	H	CH ₃	NH-SO ₂ CH(CH ₃) ₂
925	NH	H	CH ₃	NH-SO ₂ C(CH ₃) ₃
926	NH	H	CH ₃	NH-SO ₂ CH ₂ Cl
927	NH	H	CH ₃	NH-SO ₂ CH ₂ CH ₂ Cl
928	NH	H	CH ₃	NH-SO ₂ CH ₂ CH ₂ OCH ₃
929	NH	H	CH ₃	NH-SO ₂ CH ₂ CH ₂ SCH ₃
930	NH	H	CH ₃	N(CH ₃)-SO ₂ CH ₃
931	NH	H	CH ₃	N(CH ₃)-SO ₂ CH ₂ CH ₃
932	NH	H	CH ₃	N(CH ₃)-SO ₂ CH ₂ CH ₂ CH ₃
933	NH	H	CH ₃	N(CH ₃)-SO ₂ CH(CH ₃) ₂
934	NH	H	CH ₃	N(CH ₃)-SO ₂ C(CH ₃) ₃
935	NH	H	CH ₃	N(CH ₃)-SO ₂ CH ₂ Cl
936	NH	H	CH ₃	N(CH ₃)-SO ₂ CH ₂ CH ₂ Cl
937	NH	H	CH ₃	N(CH ₃)-SO ₂ CH ₂ CH ₂ OCH ₃
938	NH	H	CH ₃	N(CH ₃)-SO ₂ CH ₂ CH ₂ SCH ₃
939	NH	H	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₃
940	NH	H	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₃
941	NH	H	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ CH ₃
942	NH	H	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH(CH ₃) ₂
943	NH	H	CH ₃	N(CH ₂ CH ₃)-SO ₂ C(CH ₃) ₃
944	NH	H	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ Cl
945	NH	H	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ Cl
946	NH	H	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ OCH ₃
947	NH	H	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ SCH ₃

	(Y) _n	R ¹	R ²	R ⁴
948	NH	H	CH ₃	NH(CH ₃)
949	NH	H	CH ₃	NHCH ₂ CH ₃
950	NH	H	CH ₃	NHCH ₂ CH ₂ CH ₃
951	NH	H	CH ₃	NHCH(CH ₃) ₂
952	NH	H	CH ₃	NHC(CH ₃) ₃
953	NH	H	CH ₃	NHCH ₂ CH(CH ₃) ₂
954	NH	H	CH ₃	NHCH(CH ₃)CH ₂ CH ₃
955	NH	H	CH ₃	NHCH ₂ CH ₂ Cl
956	NH	H	CH ₃	NHCH ₂ CH ₂ OCH ₃
957	NH	H	CH ₃	NHCH ₂ CH ₂ SCH ₃
958	NH	H	CH ₃	NHCH ₂ COOCH ₃
959	NH	H	CH ₃	NHCH ₂ CONH ₂
960	NH	H	CH ₃	NHCH ₂ CH=CH ₂
961	NH	H	CH ₃	NHCH ₂ C≡CH
962	NH	H	CH ₃	NH-Cyclopentyl
963	NH	H	CH ₃	NH-Cyclohexyl
964	NH	H	CH ₃	NH-Phenyl
965	NH	H	CH ₃	N(CH ₃) ₂
966	NH	H	CH ₃	N(CH ₃)CH ₂ CH ₃
967	NH	H	CH ₃	N(CH ₃)CH(CH ₃) ₂
968	NH	H	CH ₃	N(CH ₃)C(CH ₃) ₃
969	NH	H	CH ₃	N(CH ₃)CH ₂ CH ₂ CH ₃
970	NH	H	CH ₃	N(CH ₃)CH ₂ CH(CH ₃) ₂
971	NH	H	CH ₃	N(CH ₃)CH(CH ₃)CH ₂ CH ₃
972	NH	H	CH ₃	N(CH ₃)CH ₂ CH ₂ Cl
973	NH	H	CH ₃	N(CH ₃)CH ₂ CH ₂ OCH ₃
974	NH	H	CH ₃	N(CH ₃)CH ₂ CH ₂ SCH ₃
975	NH	H	CH ₃	N(CH ₃)CH ₂ COOCH ₃
976	NH	H	CH ₃	N(CH ₃)CH ₂ CONH ₂
977	NH	H	CH ₃	N(CH ₃)CH ₂ CH=CH ₂
978	NH	H	CH ₃	N(CH ₃)CH ₂ C≡CH
979	NH	H	CH ₃	N(CH ₃)-Cyclopentyl
980	NH	H	CH ₃	N(CH ₃)-Cyclohexyl
981	NH	H	CH ₃	N(CH ₃)-Phenyl
982	NH	H	CH ₃	N(CH ₂ CH ₃) ₂
983	NH	H	CH ₃	N(CH ₂ CH ₃)CH(CH ₃) ₂
984	NH	H	CH ₃	N(CH ₂ CH ₃)CH ₂ CH ₂ CH ₃
985	NH	H	CH ₃	N(CH ₂ CH ₃)C(CH ₃) ₃
986	NH	H	CH ₃	N(CH ₂ CH ₃)CH ₂ CH(CH ₃) ₂
987	NH	H	CH ₃	N(CH ₂ CH ₃)CH(CH ₃)CH ₂ CH ₃
988	NH	H	CH ₃	N(CH ₂ CH ₃)CH ₂ CH ₂ Cl
989	NH	H	CH ₃	N(CH ₂ CH ₃)CH ₂ CH ₂ OCH ₃
990	NH	H	CH ₃	N(CH ₂ CH ₃)CH ₂ CH ₂ SCH ₃
991	NH	H	CH ₃	N(CH ₂ CH ₃)CH ₂ COOCH ₃
992	NH	H	CH ₃	N(CH ₂ CH ₃)CH ₂ CONH ₂
993	NH	H	CH ₃	N(CH ₂ CH ₃)CH ₂ CH=CH ₂
994	NH	H	CH ₃	N(CH ₂ CH ₃)CH ₂ C≡CH
995	NH	H	CH ₃	N(CH ₂ CH ₃)-Cyclopentyl
996	NH	H	CH ₃	N(CH ₂ CH ₃)-Cyclohexyl
997	NH	H	CH ₃	N(CH ₂ CH ₃)-Phenyl

	(Y) _n	R ¹	R ²	R ⁴
998	NH	H	CH ₃	N(CH(CH ₃) ₂) ₂
999	NH	H	CH ₃	N(CH(CH ₃) ₂)CH ₂ CH(CH ₃) ₂
1000	NH	H	CH ₃	N(CH(CH ₃) ₂)CH(CH ₃)CH ₂ CH ₃
1001	NH	H	CH ₃	N(CH(CH ₃) ₂)CH ₂ CH ₂ Cl
1002	NH	H	CH ₃	N(CH(CH ₃) ₂)CH ₂ CH ₂ OCH ₃
1003	NH	H	CH ₃	N(CH(CH ₃) ₂)CH ₂ CH ₂ SCH ₃
1004	NH	H	CH ₃	N(CH(CH ₃) ₂)CH ₂ COOCH ₃
1005	NH	H	CH ₃	N(CH(CH ₃) ₂)CH ₂ CONH ₂
1006	NH	H	CH ₃	N(CH(CH ₃) ₂)CH ₂ CH=CH ₂
1007	NH	H	CH ₃	N(CH(CH ₃) ₂)CH ₂ C≡CH
1008	NH	H	CH ₃	(CH(CH ₃) ₂)H-Cyclopentyl
1009	NH	H	CH ₃	N(CH(CH ₃) ₂)-Cyclohexyl
1010	NH	H	CH ₃	N(CH(CH ₃) ₂)-Phenyl
1011	NH	H	CH ₃	Morpholin-1-yl
1012	NH	H	CH ₃	Piperidin-1-yl
1013	NH	CH ₃	CH ₃	NH-SO ₂ CH ₃
1014	NH	CH ₃	CH ₃	NH-SO ₂ CH ₂ CH ₃
1015	NH	CH ₃	CH ₃	NH-SO ₂ CH ₂ CH ₂ CH ₃
1016	NH	CH ₃	CH ₃	NH-SO ₂ CH(CH ₃) ₂
1017	NH	CH ₃	CH ₃	NH-SO ₂ C(CH ₃) ₃
1018	NH	CH ₃	CH ₃	NH-SO ₂ CH ₂ Cl
1019	NH	CH ₃	CH ₃	NH-SO ₂ CH ₂ CH ₂ Cl
1020	NH	CH ₃	CH ₃	NH-SO ₂ CH ₂ CH ₂ OCH ₃
1021	NH	CH ₃	CH ₃	NH-SO ₂ CH ₂ CH ₂ SCH ₃
1022	NH	CH ₃	CH ₃	N(CH ₃)-SO ₂ CH ₃
1023	NH	CH ₃	CH ₃	N(CH ₃)-SO ₂ CH ₂ CH ₃
1024	NH	CH ₃	CH ₃	N(CH ₃)-SO ₂ CH ₂ CH ₂ CH ₃
1025	NH	CH ₃	CH ₃	N(CH ₃)-SO ₂ CH(CH ₃) ₂
1026	NH	CH ₃	CH ₃	N(CH ₃)-SO ₂ C(CH ₃) ₃
1027	NH	CH ₃	CH ₃	N(CH ₃)-SO ₂ CH ₂ Cl
1028	NH	CH ₃	CH ₃	N(CH ₃)-SO ₂ CH ₂ CH ₂ Cl
1029	NH	CH ₃	CH ₃	N(CH ₃)-SO ₂ CH ₂ CH ₂ OCH ₃
1030	NH	CH ₃	CH ₃	N(CH ₃)-SO ₂ CH ₂ CH ₂ SCH ₃
1031	NH	CH ₃	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₃
1032	NH	CH ₃	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₃
1033	NH	CH ₃	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ CH ₃
1034	NH	CH ₃	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH(CH ₃) ₂
1035	NH	CH ₃	CH ₃	N(CH ₂ CH ₃)-SO ₂ C(CH ₃) ₃
1036	NH	CH ₃	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ Cl
1037	NH	CH ₃	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ Cl
1038	NH	CH ₃	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ OCH ₃
1039	NH	CH ₃	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ SCH ₃
1040	NH	CH ₃	CH ₃	NH(CH ₃)
1041	NH	CH ₃	CH ₃	NHCH ₂ CH ₃
1042	NH	CH ₃	CH ₃	NHCH ₂ CH ₂ CH ₃
1043	NH	CH ₃	CH ₃	NHCH(CH ₃) ₂
1044	NH	CH ₃	CH ₃	NHC(CH ₃) ₃
1045	NH	CH ₃	CH ₃	NHCH ₂ CH(CH ₃) ₂
1046	NH	CH ₃	CH ₃	NHCH(CH ₃)CH ₂ CH ₃
1047	NH	CH ₃	CH ₃	NHCH ₂ CH ₂ Cl

	(Y) _n	R ¹	R ²	R ⁴
1048	NH	CH ₃	CH ₃	NHCH ₂ CH ₂ OCH ₃
1049	NH	CH ₃	CH ₃	NHCH ₂ CH ₂ SCH ₃
1050	NH	CH ₃	CH ₃	NHCH ₂ COOCH ₃
1051	NH	CH ₃	CH ₃	NHCH ₂ CONH ₂
1052	NH	CH ₃	CH ₃	NHCH ₂ CH=CH ₂
1053	NH	CH ₃	CH ₃	NHCH ₂ C≡CH
1054	NH	CH ₃	CH ₃	NH-Cyclopentyl
1055	NH	CH ₃	CH ₃	NH-Cyclohexyl
1056	NH	CH ₃	CH ₃	NH-Phenyl
1057	NH	CH ₃	CH ₃	N(CH ₃) ₂
1058	NH	CH ₃	CH ₃	N(CH ₃)CH ₂ CH ₃
1059	NH	CH ₃	CH ₃	N(CH ₃)CH(CH ₃) ₂
1060	NH	CH ₃	CH ₃	N(CH ₃)C(CH ₃) ₃
1061	NH	CH ₃	CH ₃	N(CH ₃)CH ₂ CH ₂ CH ₃
1062	NH	CH ₃	CH ₃	N(CH ₃)CH ₂ CH(CH ₃) ₂
1063	NH	CH ₃	CH ₃	N(CH ₃)CH(CH ₃)CH ₂ CH ₃
1064	NH	CH ₃	CH ₃	N(CH ₃)CH ₂ CH ₂ Cl
1065	NH	CH ₃	CH ₃	N(CH ₃)CH ₂ CH ₂ OCH ₃
1066	NH	CH ₃	CH ₃	N(CH ₃)CH ₂ CH ₂ SCH ₃
1067	NH	CH ₃	CH ₃	N(CH ₃)CH ₂ COOCH ₃
1068	NH	CH ₃	CH ₃	N(CH ₃)CH ₂ CONH ₂
1069	NH	CH ₃	CH ₃	N(CH ₃)CH ₂ CH=CH ₂
1070	NH	CH ₃	CH ₃	N(CH ₃)CH ₂ C≡CH
1071	NH	CH ₃	CH ₃	N(CH ₃)-Cyclopentyl
1072	NH	CH ₃	CH ₃	N(CH ₃)-Cyclohexyl
1073	NH	CH ₃	CH ₃	N(CH ₃)-Phenyl
1074	NH	CH ₃	CH ₃	N(CH ₂ CH ₃) ₂
1075	NH	CH ₃	CH ₃	N(CH ₂ CH ₃)CH(CH ₃) ₂
1076	NH	CH ₃	CH ₃	N(CH ₂ CH ₃)CH ₂ CH ₂ CH ₃
1077	NH	CH ₃	CH ₃	N(CH ₂ CH ₃)C(CH ₃) ₃
1078	NH	CH ₃	CH ₃	N(CH ₂ CH ₃)CH ₂ CH(CH ₃) ₂
1079	NH	CH ₃	CH ₃	N(CH ₂ CH ₃)CH(CH ₃)CH ₂ CH ₃
1080	NH	CH ₃	CH ₃	N(CH ₂ CH ₃)CH ₂ CH ₂ Cl
1081	NH	CH ₃	CH ₃	N(CH ₂ CH ₃)CH ₂ CH ₂ OCH ₃
1082	NH	CH ₃	CH ₃	N(CH ₂ CH ₃)CH ₂ CH ₂ SCH ₃
1083	NH	CH ₃	CH ₃	N(CH ₂ CH ₃)CH ₂ COOCH ₃
1084	NH	CH ₃	CH ₃	N(CH ₂ CH ₃)CH ₂ CONH ₂
1085	NH	CH ₃	CH ₃	N(CH ₂ CH ₃)CH ₂ CH=CH ₂
1086	NH	CH ₃	CH ₃	N(CH ₂ CH ₃)CH ₂ C≡CH
1087	NH	CH ₃	CH ₃	N(CH ₂ CH ₃)-Cyclopentyl
1088	NH	CH ₃	CH ₃	N(CH ₂ CH ₃)-Cyclohexyl
1089	NH	CH ₃	CH ₃	N(CH ₂ CH ₃)-Phenyl
1090	NH	CH ₃	CH ₃	N(CH(CH ₃) ₂) ₂
1091	NH	CH ₃	CH ₃	N(CH(CH ₃) ₂)CH ₂ CH(CH ₃) ₂
1092	NH	CH ₃	CH ₃	N(CH(CH ₃) ₂)CH(CH ₃)CH ₂ CH ₃
1093	NH	CH ₃	CH ₃	N(CH(CH ₃) ₂)CH ₂ CH ₂ Cl
1094	NH	CH ₃	CH ₃	N(CH(CH ₃) ₂)CH ₂ CH ₂ OCH ₃
1095	NH	CH ₃	CH ₃	N(CH(CH ₃) ₂)CH ₂ CH ₂ SCH ₃
1096	NH	CH ₃	CH ₃	N(CH(CH ₃) ₂)CH ₂ COOCH ₃
1097	NH	CH ₃	CH ₃	N(CH(CH ₃) ₂)CH ₂ CONH ₂

	(Y) _n	R ¹	R ²	R ⁴
1098	NH	CH ₃	CH ₃	N(CH(CH ₃) ₂)CH ₂ CH=CH ₂
1099	NH	CH ₃	CH ₃	N(CH(CH ₃) ₂)CH ₂ C≡CH
1100	NH	CH ₃	CH ₃	(CH(CH ₃) ₂)H-Cyclopentyl
1101	NH	CH ₃	CH ₃	N(CH(CH ₃) ₂)-Cyclohexyl
1102	NH	CH ₃	CH ₃	N(CH(CH ₃) ₂)-Phenyl
1103	NH	CH ₃	CH ₃	Morpholin-1-yl
1104	NH	CH ₃	CH ₃	Piperidin-1-yl
1105	NCH ₃	H	H	NH-SO ₂ CH ₃
1106	NCH ₃	H	H	NH-SO ₂ CH ₂ CH ₃
1107	NCH ₃	H	H	NH-SO ₂ CH ₂ CH ₂ CH ₃
1108	NCH ₃	H	H	NH-SO ₂ CH(CH ₃) ₂
1109	NCH ₃	H	H	NH-SO ₂ C(CH ₃) ₃
1110	NCH ₃	H	H	NH-SO ₂ CH ₂ Cl
1111	NCH ₃	H	H	NH-SO ₂ CH ₂ CH ₂ Cl
1112	NCH ₃	H	H	NH-SO ₂ CH ₂ CH ₂ OCH ₃
1113	NCH ₃	H	H	NH-SO ₂ CH ₂ CH ₂ SCH ₃
1114	NCH ₃	H	H	N(CH ₃)-SO ₂ CH ₃
1115	NCH ₃	H	H	N(CH ₃)-SO ₂ CH ₂ CH ₃
1116	NCH ₃	H	H	N(CH ₃)-SO ₂ CH ₂ CH ₂ CH ₃
1117	NCH ₃	H	H	N(CH ₃)-SO ₂ CH(CH ₃) ₂
1118	NCH ₃	H	H	N(CH ₃)-SO ₂ C(CH ₃) ₃
1119	NCH ₃	H	H	N(CH ₃)-SO ₂ CH ₂ Cl
1120	NCH ₃	H	H	N(CH ₃)-SO ₂ CH ₂ CH ₂ Cl
1121	NCH ₃	H	H	N(CH ₃)-SO ₂ CH ₂ CH ₂ OCH ₃
1122	NCH ₃	H	H	N(CH ₃)-SO ₂ CH ₂ CH ₂ SCH ₃
1123	NCH ₃	H	H	N(CH ₂ CH ₃)-SO ₂ CH ₃
1124	NCH ₃	H	H	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₃
1125	NCH ₃	H	H	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ CH ₃
1126	NCH ₃	H	H	N(CH ₂ CH ₃)-SO ₂ CH(CH ₃) ₂
1127	NCH ₃	H	H	N(CH ₂ CH ₃)-SO ₂ C(CH ₃) ₃
1128	NCH ₃	H	H	N(CH ₂ CH ₃)-SO ₂ CH ₂ Cl
1129	NCH ₃	H	H	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ Cl
1130	NCH ₃	H	H	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ OCH ₃
1131	NCH ₃	H	H	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ SCH ₃
1132	NCH ₃	H	H	NH(CH ₃)
1133	NCH ₃	H	H	NHCH ₂ CH ₃
1134	NCH ₃	H	H	NHCH ₂ CH ₂ CH ₃
1135	NCH ₃	H	H	NHCH(CH ₃) ₂
1136	NCH ₃	H	H	NHC(CH ₃) ₃
1137	NCH ₃	H	H	NHCH ₂ CH(CH ₃) ₂
1138	NCH ₃	H	H	NHCH(CH ₃)CH ₂ CH ₃
1139	NCH ₃	H	H	NHCH ₂ CH ₂ Cl
1140	NCH ₃	H	H	NHCH ₂ CH ₂ OCH ₃
1141	NCH ₃	H	H	NHCH ₂ CH ₂ SCH ₃
1142	NCH ₃	H	H	NHCH ₂ COOCH ₃
1143	NCH ₃	H	H	NHCH ₂ CONH ₂
1144	NCH ₃	H	H	NHCH ₂ CH=CH ₂
1145	NCH ₃	H	H	NHCH ₂ C≡CH
1146	NCH ₃	H	H	NH-Cyclopentyl
1147	NCH ₃	H	H	NH-Cyclohexyl

	(Y) _n	R ¹	R ²	R ⁴
1148	NCH ₃	H	H	NH-Phenyl
1149	NCH ₃	H	H	N(CH ₃) ₂
1150	NCH ₃	H	H	N(CH ₃)CH ₂ CH ₃
1151	NCH ₃	H	H	N(CH ₃)CH(CH ₃) ₂
1152	NCH ₃	H	H	N(CH ₃)C(CH ₃) ₃
1153	NCH ₃	H	H	N(CH ₃)CH ₂ CH ₂ CH ₃
1154	NCH ₃	H	H	N(CH ₃)CH ₂ CH(CH ₃) ₂
1155	NCH ₃	H	H	N(CH ₃)CH(CH ₃)CH ₂ CH ₃
1156	NCH ₃	H	H	N(CH ₃)CH ₂ CH ₂ Cl
1157	NCH ₃	H	H	N(CH ₃)CH ₂ CH ₂ OCH ₃
1158	NCH ₃	H	H	N(CH ₃)CH ₂ CH ₂ SCH ₃
1159	NCH ₃	H	H	N(CH ₃)CH ₂ COOCH ₃
1160	NCH ₃	H	H	N(CH ₃)CH ₂ CONH ₂
1161	NCH ₃	H	H	N(CH ₃)CH ₂ CH=CH ₂
1162	NCH ₃	H	H	N(CH ₃)CH ₂ C≡CH
1163	NCH ₃	H	H	N(CH ₃)-Cyclopentyl
1164	NCH ₃	H	H	N(CH ₃)-Cyclohexyl
1165	NCH ₃	H	H	N(CH ₃)-Phenyl
1166	NCH ₃	H	H	N(CH ₂ CH ₃) ₂
1167	NCH ₃	H	H	N(CH ₂ CH ₃)CH(CH ₃) ₂
1168	NCH ₃	H	H	N(CH ₂ CH ₃)CH ₂ CH ₂ CH ₃
1169	NCH ₃	H	H	N(CH ₂ CH ₃)C(CH ₃) ₃
1170	NCH ₃	H	H	N(CH ₂ CH ₃)CH ₂ CH(CH ₃) ₂
1171	NCH ₃	H	H	N(CH ₂ CH ₃)CH(CH ₃)CH ₂ CH ₃
1172	NCH ₃	H	H	N(CH ₂ CH ₃)CH ₂ CH ₂ Cl
1173	NCH ₃	H	H	N(CH ₂ CH ₃)CH ₂ CH ₂ OCH ₃
1174	NCH ₃	H	H	N(CH ₂ CH ₃)CH ₂ CH ₂ SCH ₃
1175	NCH ₃	H	H	N(CH ₂ CH ₃)CH ₂ COOCH ₃
1176	NCH ₃	H	H	N(CH ₂ CH ₃)CH ₂ CONH ₂
1177	NCH ₃	H	H	N(CH ₂ CH ₃)CH ₂ CH=CH ₂
1178	NCH ₃	H	H	N(CH ₂ CH ₃)CH ₂ C≡CH
1179	NCH ₃	H	H	N(CH ₂ CH ₃)-Cyclopentyl
1180	NCH ₃	H	H	N(CH ₂ CH ₃)-Cyclohexyl
1181	NCH ₃	H	H	N(CH ₂ CH ₃)-Phenyl
1182	NCH ₃	H	H	N(CH(CH ₃) ₂) ₂
1183	NCH ₃	H	H	N(CH(CH ₃) ₂)CH ₂ CH(CH ₃) ₂
1184	NCH ₃	H	H	N(CH(CH ₃) ₂)CH(CH ₃)CH ₂ CH ₃
1185	NCH ₃	H	H	N(CH(CH ₃) ₂)CH ₂ CH ₂ Cl
1186	NCH ₃	H	H	N(CH(CH ₃) ₂)CH ₂ CH ₂ OCH ₃
1187	NCH ₃	H	H	N(CH(CH ₃) ₂)CH ₂ CH ₂ SCH ₃
1188	NCH ₃	H	H	N(CH(CH ₃) ₂)CH ₂ COOCH ₃
1189	NCH ₃	H	H	N(CH(CH ₃) ₂)CH ₂ CONH ₂
1190	NCH ₃	H	H	N(CH(CH ₃) ₂)CH ₂ CH=CH ₂
1191	NCH ₃	H	H	N(CH(CH ₃) ₂)CH ₂ C≡CH
1192	NCH ₃	H	H	(CH(CH ₃) ₂)H-Cyclopentyl
1193	NCH ₃	H	H	N(CH(CH ₃) ₂)-Cyclohexyl
1194	NCH ₃	H	H	N(CH(CH ₃) ₂)-Phenyl
1195	NCH ₃	H	H	Morpholin-1-yl
1196	NCH ₃	H	H	Piperidin-1-yl
1197	NCH ₃	H	CH ₃	NH-SO ₂ CH ₃

	(Y) _n	R ¹	R ²	R ⁴
1198	NCH ₃	H	CH ₃	NH-SO ₂ CH ₂ CH ₃
1199	NCH ₃	H	CH ₃	NH-SO ₂ CH ₂ CH ₂ CH ₃
1200	NCH ₃	H	CH ₃	NH-SO ₂ CH(CH ₃) ₂
1201	NCH ₃	H	CH ₃	NH-SO ₂ C(CH ₃) ₃
1202	NCH ₃	H	CH ₃	NH-SO ₂ CH ₂ Cl
1203	NCH ₃	H	CH ₃	NH-SO ₂ CH ₂ CH ₂ Cl
1204	NCH ₃	H	CH ₃	NH-SO ₂ CH ₂ CH ₂ OCH ₃
1205	NCH ₃	H	CH ₃	NH-SO ₂ CH ₂ CH ₂ SCH ₃
1206	NCH ₃	H	CH ₃	N(CH ₃)-SO ₂ CH ₃
1207	NCH ₃	H	CH ₃	N(CH ₃)-SO ₂ CH ₂ CH ₃
1208	NCH ₃	H	CH ₃	N(CH ₃)-SO ₂ CH ₂ CH ₂ CH ₃
1209	NCH ₃	H	CH ₃	N(CH ₃)-SO ₂ CH(CH ₃) ₂
1210	NCH ₃	H	CH ₃	N(CH ₃)-SO ₂ C(CH ₃) ₃
1211	NCH ₃	H	CH ₃	N(CH ₃)-SO ₂ CH ₂ Cl
1212	NCH ₃	H	CH ₃	N(CH ₃)-SO ₂ CH ₂ CH ₂ Cl
1213	NCH ₃	H	CH ₃	N(CH ₃)-SO ₂ CH ₂ CH ₂ OCH ₃
1214	NCH ₃	H	CH ₃	N(CH ₃)-SO ₂ CH ₂ CH ₂ SCH ₃
1215	NCH ₃	H	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₃
1216	NCH ₃	H	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₃
1217	NCH ₃	H	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ CH ₃
1218	NCH ₃	H	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH(CH ₃) ₂
1219	NCH ₃	H	CH ₃	N(CH ₂ CH ₃)-SO ₂ C(CH ₃) ₃
1220	NCH ₃	H	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ Cl
1221	NCH ₃	H	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ Cl
1222	NCH ₃	H	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ OCH ₃
1223	NCH ₃	H	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ SCH ₃
1224	NCH ₃	H	CH ₃	NH(CH ₃)
1225	NCH ₃	H	CH ₃	NHCH ₂ CH ₃
1226	NCH ₃	H	CH ₃	NHCH ₂ CH ₂ CH ₃
1227	NCH ₃	H	CH ₃	NHCH(CH ₃) ₂
1228	NCH ₃	H	CH ₃	NHC(CH ₃) ₃
1229	NCH ₃	H	CH ₃	NHCH ₂ CH(CH ₃) ₂
1230	NCH ₃	H	CH ₃	NHCH(CH ₃)CH ₂ CH ₃
1231	NCH ₃	H	CH ₃	NHCH ₂ CH ₂ Cl
1232	NCH ₃	H	CH ₃	NHCH ₂ CH ₂ OCH ₃
1233	NCH ₃	H	CH ₃	NHCH ₂ CH ₂ SCH ₃
1234	NCH ₃	H	CH ₃	NHCH ₂ COOCH ₃
1235	NCH ₃	H	CH ₃	NHCH ₂ CONH ₂
1236	NCH ₃	H	CH ₃	NHCH ₂ CH=CH ₂
1237	NCH ₃	H	CH ₃	NHCH ₂ C≡CH
1238	NCH ₃	H	CH ₃	NH-Cyclopentyl
1239	NCH ₃	H	CH ₃	NH-Cyclohexyl
1240	NCH ₃	H	CH ₃	NH-Phenyl
1241	NCH ₃	H	CH ₃	N(CH ₃) ₂
1242	NCH ₃	H	CH ₃	N(CH ₃)CH ₂ CH ₃
1243	NCH ₃	H	CH ₃	N(CH ₃)CH(CH ₃) ₂
1244	NCH ₃	H	CH ₃	N(CH ₃)C(CH ₃) ₃
1245	NCH ₃	H	CH ₃	N(CH ₃)CH ₂ CH ₂ CH ₃
1246	NCH ₃	H	CH ₃	N(CH ₃)CH ₂ CH(CH ₃) ₂
1247	NCH ₃	H	CH ₃	N(CH ₃)CH(CH ₃)CH ₂ CH ₃

	(Y) _n	R ¹	R ²	R ⁴
1248	NCH ₃	H	CH ₃	N(CH ₃)CH ₂ CH ₂ Cl
1249	NCH ₃	H	CH ₃	N(CH ₃)CH ₂ CH ₂ OCH ₃
1250	NCH ₃	H	CH ₃	N(CH ₃)CH ₂ CH ₂ SCH ₃
1251	NCH ₃	H	CH ₃	N(CH ₃)CH ₂ COOCH ₃
1252	NCH ₃	H	CH ₃	N(CH ₃)CH ₂ CONH ₂
1253	NCH ₃	H	CH ₃	N(CH ₃)CH ₂ CH=CH ₂
1254	NCH ₃	H	CH ₃	N(CH ₃)CH ₂ C≡CH
1255	NCH ₃	H	CH ₃	N(CH ₃)-Cyclopentyl
1256	NCH ₃	H	CH ₃	N(CH ₃)-Cyclohexyl
1257	NCH ₃	H	CH ₃	N(CH ₃)-Phenyl
1258	NCH ₃	H	CH ₃	N(CH ₂ CH ₃) ₂
1259	NCH ₃	H	CH ₃	N(CH ₂ CH ₃)CH(CH ₃) ₂
1260	NCH ₃	H	CH ₃	N(CH ₂ CH ₃)CH ₂ CH ₂ CH ₃
1261	NCH ₃	H	CH ₃	N(CH ₂ CH ₃)C(CH ₃) ₃
1262	NCH ₃	H	CH ₃	N(CH ₂ CH ₃)CH ₂ CH(CH ₃) ₂
1263	NCH ₃	H	CH ₃	N(CH ₂ CH ₃)CH(CH ₃)CH ₂ CH ₃
1264	NCH ₃	H	CH ₃	N(CH ₂ CH ₃)CH ₂ CH ₂ Cl
1265	NCH ₃	H	CH ₃	N(CH ₂ CH ₃)CH ₂ CH ₂ OCH ₃
1266	NCH ₃	H	CH ₃	N(CH ₂ CH ₃)CH ₂ CH ₂ SCH ₃
1267	NCH ₃	H	CH ₃	N(CH ₂ CH ₃)CH ₂ COOCH ₃
1268	NCH ₃	H	CH ₃	N(CH ₂ CH ₃)CH ₂ CONH ₂
1269	NCH ₃	H	CH ₃	N(CH ₂ CH ₃)CH ₂ CH=CH ₂
1270	NCH ₃	H	CH ₃	N(CH ₂ CH ₃)CH ₂ C≡CH
1271	NCH ₃	H	CH ₃	N(CH ₂ CH ₃)-Cyclopentyl
1272	NCH ₃	H	CH ₃	N(CH ₂ CH ₃)-Cyclohexyl
1273	NCH ₃	H	CH ₃	N(CH ₂ CH ₃)-Phenyl
1274	NCH ₃	H	CH ₃	N(CH(CH ₃) ₂) ₂
1275	NCH ₃	H	CH ₃	N(CH(CH ₃) ₂)CH ₂ CH(CH ₃) ₂
1276	NCH ₃	H	CH ₃	N(CH(CH ₃) ₂)CH(CH ₃)CH ₂ CH ₃
1277	NCH ₃	H	CH ₃	N(CH(CH ₃) ₂)CH ₂ CH ₂ Cl
1278	NCH ₃	H	CH ₃	N(CH(CH ₃) ₂)CH ₂ CH ₂ OCH ₃
1279	NCH ₃	H	CH ₃	N(CH(CH ₃) ₂)CH ₂ CH ₂ SCH ₃
1280	NCH ₃	H	CH ₃	N(CH(CH ₃) ₂)CH ₂ COOCH ₃
1281	NCH ₃	H	CH ₃	N(CH(CH ₃) ₂)CH ₂ CONH ₂
1282	NCH ₃	H	CH ₃	N(CH(CH ₃) ₂)CH ₂ CH=CH ₂
1283	NCH ₃	H	CH ₃	N(CH(CH ₃) ₂)CH ₂ C≡CH
1284	NCH ₃	H	CH ₃	(CH(CH ₃) ₂)H-Cyclopentyl
1285	NCH ₃	H	CH ₃	N(CH(CH ₃) ₂)-Cyclohexyl
1286	NCH ₃	H	CH ₃	N(CH(CH ₃) ₂)-Phenyl
1287	NCH ₃	H	CH ₃	Morpholin-1-yl
1288	NCH ₃	H	CH ₃	Piperidin-1-yl
1289	NCH ₃	CH ₃	CH ₃	NH-SO ₂ CH ₃
1290	NCH ₃	CH ₃	CH ₃	NH-SO ₂ CH ₂ CH ₃
1291	NCH ₃	CH ₃	CH ₃	NH-SO ₂ CH ₂ CH ₂ CH ₃
1292	NCH ₃	CH ₃	CH ₃	NH-SO ₂ CH(CH ₃) ₂
1293	NCH ₃	CH ₃	CH ₃	NH-SO ₂ C(CH ₃) ₃
1294	NCH ₃	CH ₃	CH ₃	NH-SO ₂ CH ₂ Cl
1295	NCH ₃	CH ₃	CH ₃	NH-SO ₂ CH ₂ CH ₂ Cl
1296	NCH ₃	CH ₃	CH ₃	NH-SO ₂ CH ₂ CH ₂ OCH ₃
1297	NCH ₃	CH ₃	CH ₃	NH-SO ₂ CH ₂ CH ₂ SCH ₃

	(Y) _n	R ¹	R ²	R ⁴
1298	NCH ₃	CH ₃	CH ₃	N(CH ₃)-SO ₂ CH ₃
1299	NCH ₃	CH ₃	CH ₃	N(CH ₃)-SO ₂ CH ₂ CH ₃
1300	NCH ₃	CH ₃	CH ₃	N(CH ₃)-SO ₂ CH ₂ CH ₂ CH ₃
1301	NCH ₃	CH ₃	CH ₃	N(CH ₃)-SO ₂ CH(CH ₃) ₂
1302	NCH ₃	CH ₃	CH ₃	N(CH ₃)-SO ₂ C(CH ₃) ₃
1303	NCH ₃	CH ₃	CH ₃	N(CH ₃)-SO ₂ CH ₂ Cl
1304	NCH ₃	CH ₃	CH ₃	N(CH ₃)-SO ₂ CH ₂ CH ₂ Cl
1305	NCH ₃	CH ₃	CH ₃	N(CH ₃)-SO ₂ CH ₂ CH ₂ OCH ₃
1306	NCH ₃	CH ₃	CH ₃	N(CH ₃)-SO ₂ CH ₂ CH ₂ SCH ₃
1307	NCH ₃	CH ₃	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₃
1308	NCH ₃	CH ₃	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₃
1309	NCH ₃	CH ₃	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ CH ₃
1310	NCH ₃	CH ₃	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH(CH ₃) ₂
1311	NCH ₃	CH ₃	CH ₃	N(CH ₂ CH ₃)-SO ₂ C(CH ₃) ₃
1312	NCH ₃	CH ₃	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ Cl
1313	NCH ₃	CH ₃	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ Cl
1314	NCH ₃	CH ₃	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ OCH ₃
1315	NCH ₃	CH ₃	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ SCH ₃
1316	NCH ₃	CH ₃	CH ₃	NH(CH ₃)
1317	NCH ₃	CH ₃	CH ₃	NHCH ₂ CH ₃
1318	NCH ₃	CH ₃	CH ₃	NHCH ₂ CH ₂ CH ₃
1319	NCH ₃	CH ₃	CH ₃	NHCH(CH ₃) ₂
1320	NCH ₃	CH ₃	CH ₃	NHC(CH ₃) ₃
1321	NCH ₃	CH ₃	CH ₃	NHCH ₂ CH(CH ₃) ₂
1322	NCH ₃	CH ₃	CH ₃	NHCH(CH ₃)CH ₂ CH ₃
1323	NCH ₃	CH ₃	CH ₃	NHCH ₂ CH ₂ Cl
1324	NCH ₃	CH ₃	CH ₃	NHCH ₂ CH ₂ OCH ₃
1325	NCH ₃	CH ₃	CH ₃	NHCH ₂ CH ₂ SCH ₃
1326	NCH ₃	CH ₃	CH ₃	NHCH ₂ COOCH ₃
1327	NCH ₃	CH ₃	CH ₃	NHCH ₂ CONH ₂
1328	NCH ₃	CH ₃	CH ₃	NHCH ₂ CH=CH ₂
1329	NCH ₃	CH ₃	CH ₃	NHCH ₂ C≡CH
1330	NCH ₃	CH ₃	CH ₃	NH-Cyclopentyl
1331	NCH ₃	CH ₃	CH ₃	NH-Cyclohexyl
1332	NCH ₃	CH ₃	CH ₃	NH-Phenyl
1333	NCH ₃	CH ₃	CH ₃	N(CH ₃) ₂
1334	NCH ₃	CH ₃	CH ₃	N(CH ₃)CH ₂ CH ₃
1335	NCH ₃	CH ₃	CH ₃	N(CH ₃)CH(CH ₃) ₂
1336	NCH ₃	CH ₃	CH ₃	N(CH ₃)C(CH ₃) ₃
1337	NCH ₃	CH ₃	CH ₃	N(CH ₃)CH ₂ CH ₂ CH ₃
1338	NCH ₃	CH ₃	CH ₃	N(CH ₃)CH ₂ CH(CH ₃) ₂
1339	NCH ₃	CH ₃	CH ₃	N(CH ₃)CH(CH ₃)CH ₂ CH ₃
1340	NCH ₃	CH ₃	CH ₃	N(CH ₃)CH ₂ CH ₂ Cl
1341	NCH ₃	CH ₃	CH ₃	N(CH ₃)CH ₂ CH ₂ OCH ₃
1342	NCH ₃	CH ₃	CH ₃	N(CH ₃)CH ₂ CH ₂ SCH ₃
1343	NCH ₃	CH ₃	CH ₃	N(CH ₃)CH ₂ COOCH ₃
1344	NCH ₃	CH ₃	CH ₃	N(CH ₃)CH ₂ CONH ₂
1345	NCH ₃	CH ₃	CH ₃	N(CH ₃)CH ₂ CH=CH ₂
1346	NCH ₃	CH ₃	CH ₃	N(CH ₃)CH ₂ C≡CH
1347	NCH ₃	CH ₃	CH ₃	N(CH ₃)-Cyclopentyl

	(Y) _n	R ¹	R ²	R ⁴
1348	NCH ₃	CH ₃	CH ₃	N(CH ₃)-Cyclohexyl
1349	NCH ₃	CH ₃	CH ₃	N(CH ₃)-Phenyl
1350	NCH ₃	CH ₃	CH ₃	N(CH ₂ CH ₃) ₂
1351	NCH ₃	CH ₃	CH ₃	N(CH ₂ CH ₃)CH(CH ₃) ₂
1352	NCH ₃	CH ₃	CH ₃	N(CH ₂ CH ₃)CH ₂ CH ₂ CH ₃
1353	NCH ₃	CH ₃	CH ₃	N(CH ₂ CH ₃)C(CH ₃) ₃
1354	NCH ₃	CH ₃	CH ₃	N(CH ₂ CH ₃)CH ₂ CH(CH ₃) ₂
1355	NCH ₃	CH ₃	CH ₃	N(CH ₂ CH ₃)CH(CH ₃)CH ₂ CH ₃
1356	NCH ₃	CH ₃	CH ₃	N(CH ₂ CH ₃)CH ₂ CH ₂ Cl
1357	NCH ₃	CH ₃	CH ₃	N(CH ₂ CH ₃)CH ₂ CH ₂ OCH ₃
1358	NCH ₃	CH ₃	CH ₃	N(CH ₂ CH ₃)CH ₂ CH ₂ SCH ₃
1359	NCH ₃	CH ₃	CH ₃	N(CH ₂ CH ₃)CH ₂ COOCH ₃
1360	NCH ₃	CH ₃	CH ₃	N(CH ₂ CH ₃)CH ₂ CONH ₂
1361	NCH ₃	CH ₃	CH ₃	N(CH ₂ CH ₃)CH ₂ CH=CH ₂
1362	NCH ₃	CH ₃	CH ₃	N(CH ₂ CH ₃)CH ₂ C≡CH
1363	NCH ₃	CH ₃	CH ₃	N(CH ₂ CH ₃)-Cyclopentyl
1364	NCH ₃	CH ₃	CH ₃	N(CH ₂ CH ₃)-Cyclohexyl
1365	NCH ₃	CH ₃	CH ₃	N(CH ₂ CH ₃)-Phenyl
1366	NCH ₃	CH ₃	CH ₃	N(CH(CH ₃) ₂) ₂
1367	NCH ₃	CH ₃	CH ₃	N(CH(CH ₃) ₂)CH ₂ CH(CH ₃) ₂
1368	NCH ₃	CH ₃	CH ₃	N(CH(CH ₃) ₂)CH(CH ₃)CH ₂ CH ₃
1369	NCH ₃	CH ₃	CH ₃	N(CH(CH ₃) ₂)CH ₂ CH ₂ Cl
1370	NCH ₃	CH ₃	CH ₃	N(CH(CH ₃) ₂)CH ₂ CH ₂ OCH ₃
1371	NCH ₃	CH ₃	CH ₃	N(CH(CH ₃) ₂)CH ₂ CH ₂ SCH ₃
1372	NCH ₃	CH ₃	CH ₃	N(CH(CH ₃) ₂)CH ₂ COOCH ₃
1373	NCH ₃	CH ₃	CH ₃	N(CH(CH ₃) ₂)CH ₂ CONH ₂
1374	NCH ₃	CH ₃	CH ₃	N(CH(CH ₃) ₂)CH ₂ CH=CH ₂
1375	NCH ₃	CH ₃	CH ₃	N(CH(CH ₃) ₂)CH ₂ C≡CH
1376	NCH ₃	CH ₃	CH ₃	(CH(CH ₃) ₂)H-Cyclopentyl
1377	NCH ₃	CH ₃	CH ₃	N(CH(CH ₃) ₂)-Cyclohexyl
1378	NCH ₃	CH ₃	CH ₃	N(CH(CH ₃) ₂)-Phenyl
1379	NCH ₃	CH ₃	CH ₃	Morpholin-1-yl
1380	NCH ₃	CH ₃	CH ₃	Piperidin-1-yl
1381	CH ₂	H	Cl	NH-SO ₂ CH ₃
1382	CH ₂	H	Cl	NH-SO ₂ CH ₂ CH ₃
1383	CH ₂	H	Cl	NH-SO ₂ CH ₂ CH ₂ CH ₃
1384	CH ₂	H	Cl	NH-SO ₂ CH(CH ₃) ₂
1385	CH ₂	H	Cl	NH-SO ₂ C(CH ₃) ₃
1386	CH ₂	H	Cl	NH-SO ₂ CH ₂ Cl
1387	CH ₂	H	Cl	NH-SO ₂ CH ₂ CH ₂ Cl
1388	CH ₂	H	Cl	NH-SO ₂ CH ₂ CH ₂ OCH ₃
1389	CH ₂	H	Cl	NH-SO ₂ CH ₂ CH ₂ SCH ₃
1390	CH ₂	H	Cl	N(CH ₃)-SO ₂ CH ₃
1391	CH ₂	H	Cl	N(CH ₃)-SO ₂ CH ₂ CH ₃
1392	CH ₂	H	Cl	N(CH ₃)-SO ₂ CH ₂ CH ₂ CH ₃
1393	CH ₂	H	Cl	N(CH ₃)-SO ₂ CH(CH ₃) ₂
1394	CH ₂	H	Cl	N(CH ₃)-SO ₂ C(CH ₃) ₃
1395	CH ₂	H	Cl	N(CH ₃)-SO ₂ CH ₂ Cl
1396	CH ₂	H	Cl	N(CH ₃)-SO ₂ CH ₂ CH ₂ Cl
1397	CH ₂	H	Cl	N(CH ₃)-SO ₂ CH ₂ CH ₂ OCH ₃

	(Y) _n	R ¹	R ²	R ⁴
1398	CH ₂	H	Cl	N(CH ₃)-SO ₂ CH ₂ CH ₂ SCH ₃
1399	CH ₂	H	Cl	N(CH ₂ CH ₃)-SO ₂ CH ₃
1400	CH ₂	H	Cl	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₃
1401	CH ₂	H	Cl	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ CH ₃
1402	CH ₂	H	Cl	N(CH ₂ CH ₃)-SO ₂ CH(CH ₃) ₂
1403	CH ₂	H	Cl	N(CH ₂ CH ₃)-SO ₂ C(CH ₃) ₃
1404	CH ₂	H	Cl	N(CH ₂ CH ₃)-SO ₂ CH ₂ Cl
1405	CH ₂	H	Cl	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ Cl
1406	CH ₂	H	Cl	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ OCH ₃
1407	CH ₂	H	Cl	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ SCH ₃
1408	CH ₂	H	Cl	NH(CH ₃)
1409	CH ₂	H	Cl	NHCH ₂ CH ₃
1410	CH ₂	H	Cl	NHCH ₂ CH ₂ CH ₃
1411	CH ₂	H	Cl	NHCH(CH ₃) ₂
1412	CH ₂	H	Cl	NHC(CH ₃) ₃
1413	CH ₂	H	Cl	NHCH ₂ CH(CH ₃) ₂
1414	CH ₂	H	Cl	NHCH(CH ₃)CH ₂ CH ₃
1415	CH ₂	H	Cl	NHCH ₂ CH ₂ Cl
1416	CH ₂	H	Cl	NHCH ₂ CH ₂ OCH ₃
1417	CH ₂	H	Cl	NHCH ₂ CH ₂ SCH ₃
1418	CH ₂	H	Cl	NHCH ₂ COOCH ₃
1419	CH ₂	H	Cl	NHCH ₂ CONH ₂
1420	CH ₂	H	Cl	NHCH ₂ CH=CH ₂
1421	CH ₂	H	Cl	NHCH ₂ C≡CH
1422	CH ₂	H	Cl	NH-Cyclopentyl
1423	CH ₂	H	Cl	NH-Cyclohexyl
1424	CH ₂	H	Cl	NH-Phenyl
1425	CH ₂	H	Cl	N(CH ₃) ₂
1426	CH ₂	H	Cl	N(CH ₃)CH ₂ CH ₃
1427	CH ₂	H	Cl	N(CH ₃)CH(CH ₃) ₂
1428	CH ₂	H	Cl	N(CH ₃)C(CH ₃) ₃
1429	CH ₂	H	Cl	N(CH ₃)CH ₂ CH ₂ CH ₃
1430	CH ₂	H	Cl	N(CH ₃)CH ₂ CH(CH ₃) ₂
1431	CH ₂	H	Cl	N(CH ₃)CH(CH ₃)CH ₂ CH ₃
1432	CH ₂	H	Cl	N(CH ₃)CH ₂ CH ₂ Cl
1433	CH ₂	H	Cl	N(CH ₃)CH ₂ CH ₂ OCH ₃
1434	CH ₂	H	Cl	N(CH ₃)CH ₂ CH ₂ SCH ₃
1435	CH ₂	H	Cl	N(CH ₃)CH ₂ COOCH ₃
1436	CH ₂	H	Cl	N(CH ₃)CH ₂ CONH ₂
1437	CH ₂	H	Cl	N(CH ₃)CH ₂ CH=CH ₂
1438	CH ₂	H	Cl	N(CH ₃)CH ₂ C≡CH
1439	CH ₂	H	Cl	N(CH ₃)-Cyclopentyl
1440	CH ₂	H	Cl	N(CH ₃)-Cyclohexyl
1441	CH ₂	H	Cl	N(CH ₃)-Phenyl
1442	CH ₂	H	Cl	N(CH ₂ CH ₃) ₂
1443	CH ₂	H	Cl	N(CH ₂ CH ₃)CH(CH ₃) ₂
1444	CH ₂	H	Cl	N(CH ₂ CH ₃)CH ₂ CH ₂ CH ₃
1445	CH ₂	H	Cl	N(CH ₂ CH ₃)C(CH ₃) ₃
1446	CH ₂	H	Cl	N(CH ₂ CH ₃)CH ₂ CH(CH ₃) ₂
1447	CH ₂	H	Cl	N(CH ₂ CH ₃)CH(CH ₃)CH ₂ CH ₃

	(Y) _n	R ¹	R ²	R ⁴
1448	CH ₂	H	Cl	N(CH ₂ CH ₃)CH ₂ CH ₂ Cl
1449	CH ₂	H	Cl	N(CH ₂ CH ₃)CH ₂ CH ₂ OCH ₃
1450	CH ₂	H	Cl	N(CH ₂ CH ₃)CH ₂ CH ₂ SCH ₃
1451	CH ₂	H	Cl	N(CH ₂ CH ₃)CH ₂ COOCH ₃
1452	CH ₂	H	Cl	N(CH ₂ CH ₃)CH ₂ CONH ₂
1453	CH ₂	H	Cl	N(CH ₂ CH ₃)CH ₂ CH=CH ₂
1454	CH ₂	H	Cl	N(CH ₂ CH ₃)CH ₂ C≡CH
1455	CH ₂	H	Cl	N(CH ₂ CH ₃)-Cyclopentyl
1456	CH ₂	H	Cl	N(CH ₂ CH ₃)-Cyclohexyl
1457	CH ₂	H	Cl	N(CH ₂ CH ₃)-Phenyl
1458	CH ₂	H	Cl	N(CH(CH ₃) ₂) ₂
1459	CH ₂	H	Cl	N(CH(CH ₃) ₂)CH ₂ CH(CH ₃) ₂
1460	CH ₂	H	Cl	N(CH(CH ₃) ₂)CH(CH ₃)CH ₂ CH ₃
1461	CH ₂	H	Cl	N(CH(CH ₃) ₂)CH ₂ CH ₂ Cl
1462	CH ₂	H	Cl	N(CH(CH ₃) ₂)CH ₂ CH ₂ OCH ₃
1463	CH ₂	H	Cl	N(CH(CH ₃) ₂)CH ₂ CH ₂ SCH ₃
1464	CH ₂	H	Cl	N(CH(CH ₃) ₂)CH ₂ COOCH ₃
1465	CH ₂	H	Cl	N(CH(CH ₃) ₂)CH ₂ CONH ₂
1466	CH ₂	H	Cl	N(CH(CH ₃) ₂)CH ₂ CH=CH ₂
1467	CH ₂	H	Cl	N(CH(CH ₃) ₂)CH ₂ C≡CH
1468	CH ₂	H	Cl	(CH(CH ₃) ₂)H-Cyclopentyl
1469	CH ₂	H	Cl	N(CH(CH ₃) ₂)-Cyclohexyl
1470	CH ₂	H	Cl	N(CH(CH ₃) ₂)-Phenyl
1471	CH ₂	H	Cl	Morpholin-1-yl
1472	CH ₂	H	Cl	Piperidin-1-yl
1473	CH ₂	H	CH ₃	NH-SO ₂ CH ₃
1474	CH ₂	H	CH ₃	NH-SO ₂ CH ₂ CH ₃
1475	CH ₂	H	CH ₃	NH-SO ₂ CH ₂ CH ₂ CH ₃
1476	CH ₂	H	CH ₃	NH-SO ₂ CH(CH ₃) ₂
1477	CH ₂	H	CH ₃	NH-SO ₂ C(CH ₃) ₃
1478	CH ₂	H	CH ₃	NH-SO ₂ CH ₂ Cl
1479	CH ₂	H	CH ₃	NH-SO ₂ CH ₂ CH ₂ Cl
1480	CH ₂	H	CH ₃	NH-SO ₂ CH ₂ CH ₂ OCH ₃
1481	CH ₂	H	CH ₃	NH-SO ₂ CH ₂ CH ₂ SCH ₃
1482	CH ₂	H	CH ₃	N(CH ₃)-SO ₂ CH ₃
1483	CH ₂	H	CH ₃	N(CH ₃)-SO ₂ CH ₂ CH ₃
1484	CH ₂	H	CH ₃	N(CH ₃)-SO ₂ CH ₂ CH ₂ CH ₃
1485	CH ₂	H	CH ₃	N(CH ₃)-SO ₂ CH(CH ₃) ₂
1486	CH ₂	H	CH ₃	N(CH ₃)-SO ₂ C(CH ₃) ₃
1487	CH ₂	H	CH ₃	N(CH ₃)-SO ₂ CH ₂ Cl
1488	CH ₂	H	CH ₃	N(CH ₃)-SO ₂ CH ₂ CH ₂ Cl
1489	CH ₂	H	CH ₃	N(CH ₃)-SO ₂ CH ₂ CH ₂ OCH ₃
1490	CH ₂	H	CH ₃	N(CH ₃)-SO ₂ CH ₂ CH ₂ SCH ₃
1491	CH ₂	H	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₃
1492	CH ₂	H	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₃
1493	CH ₂	H	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ CH ₃
1494	CH ₂	H	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH(CH ₃) ₂
1495	CH ₂	H	CH ₃	N(CH ₂ CH ₃)-SO ₂ C(CH ₃) ₃
1496	CH ₂	H	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ Cl
1497	CH ₂	H	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ Cl

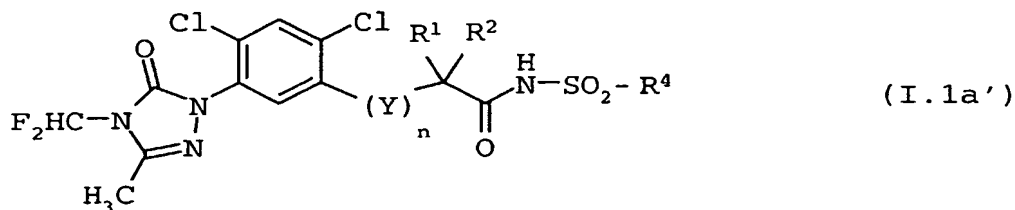
	(Y) _n	R ¹	R ²	R ⁴
1498	CH ₂	H	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ OCH ₃
1499	CH ₂	H	CH ₃	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ SCH ₃
1500	CH ₂	H	CH ₃	NH(CH ₃)
1501	CH ₂	H	CH ₃	NHCH ₂ CH ₃
1502	CH ₂	H	CH ₃	NHCH ₂ CH ₂ CH ₃
1503	CH ₂	H	CH ₃	NHCH(CH ₃) ₂
1504	CH ₂	H	CH ₃	NHC(CH ₃) ₃
1505	CH ₂	H	CH ₃	NHCH ₂ CH(CH ₃) ₂
1506	CH ₂	H	CH ₃	NHCH(CH ₃)CH ₂ CH ₃
1507	CH ₂	H	CH ₃	NHCH ₂ CH ₂ Cl
1508	CH ₂	H	CH ₃	NHCH ₂ CH ₂ OCH ₃
1509	CH ₂	H	CH ₃	NHCH ₂ CH ₂ SCH ₃
1510	CH ₂	H	CH ₃	NHCH ₂ COOCH ₃
1511	CH ₂	H	CH ₃	NHCH ₂ CONH ₂
1512	CH ₂	H	CH ₃	NHCH ₂ CH=CH ₂
1513	CH ₂	H	CH ₃	NHCH ₂ C≡CH
1514	CH ₂	H	CH ₃	NH-Cyclopentyl
1515	CH ₂	H	CH ₃	NH-Cyclohexyl
1516	CH ₂	H	CH ₃	NH-Phenyl
1517	CH ₂	H	CH ₃	N(CH ₃) ₂
1518	CH ₂	H	CH ₃	N(CH ₃)CH ₂ CH ₃
1519	CH ₂	H	CH ₃	N(CH ₃)CH(CH ₃) ₂
1520	CH ₂	H	CH ₃	N(CH ₃)C(CH ₃) ₃
1521	CH ₂	H	CH ₃	N(CH ₃)CH ₂ CH ₂ CH ₃
1522	CH ₂	H	CH ₃	N(CH ₃)CH ₂ CH(CH ₃) ₂
1523	CH ₂	H	CH ₃	N(CH ₃)CH(CH ₃)CH ₂ CH ₃
1524	CH ₂	H	CH ₃	N(CH ₃)CH ₂ CH ₂ Cl
1525	CH ₂	H	CH ₃	N(CH ₃)CH ₂ CH ₂ OCH ₃
1526	CH ₂	H	CH ₃	N(CH ₃)CH ₂ CH ₂ SCH ₃
1527	CH ₂	H	CH ₃	N(CH ₃)CH ₂ COOCH ₃
1528	CH ₂	H	CH ₃	N(CH ₃)CH ₂ CONH ₂
1529	CH ₂	H	CH ₃	N(CH ₃)CH ₂ CH=CH ₂
1530	CH ₂	H	CH ₃	N(CH ₃)CH ₂ C≡CH
1531	CH ₂	H	CH ₃	N(CH ₃)-Cyclopentyl
1532	CH ₂	H	CH ₃	N(CH ₃)-Cyclohexyl
1533	CH ₂	H	CH ₃	N(CH ₃)-Phenyl
1534	CH ₂	H	CH ₃	N(CH ₂ CH ₃) ₂
1535	CH ₂	H	CH ₃	N(CH ₂ CH ₃)CH(CH ₃) ₂
1536	CH ₂	H	CH ₃	N(CH ₂ CH ₃)CH ₂ CH ₂ CH ₃
1537	CH ₂	H	CH ₃	N(CH ₂ CH ₃)C(CH ₃) ₃
1538	CH ₂	H	CH ₃	N(CH ₂ CH ₃)CH ₂ CH(CH ₃) ₂
1539	CH ₂	H	CH ₃	N(CH ₂ CH ₃)CH(CH ₃)CH ₂ CH ₃
1540	CH ₂	H	CH ₃	N(CH ₂ CH ₃)CH ₂ CH ₂ Cl
1541	CH ₂	H	CH ₃	N(CH ₂ CH ₃)CH ₂ CH ₂ OCH ₃
1542	CH ₂	H	CH ₃	N(CH ₂ CH ₃)CH ₂ CH ₂ SCH ₃
1543	CH ₂	H	CH ₃	N(CH ₂ CH ₃)CH ₂ COOCH ₃
1544	CH ₂	H	CH ₃	N(CH ₂ CH ₃)CH ₂ CONH ₂
1545	CH ₂	H	CH ₃	N(CH ₂ CH ₃)CH ₂ CH=CH ₂
1546	CH ₂	H	CH ₃	N(CH ₂ CH ₃)CH ₂ C≡CH
1547	CH ₂	H	CH ₃	N(CH ₂ CH ₃)-Cyclopentyl

	(Y) _n	R ¹	R ²	R ⁴
1548	CH ₂	H	CH ₃	N(CH ₂ CH ₃)-Cyclohexyl
1549	CH ₂	H	CH ₃	N(CH ₂ CH ₃)-Phenyl
1550	CH ₂	H	CH ₃	N(CH(CH ₃) ₂) ₂
1551	CH ₂	H	CH ₃	N(CH(CH ₃) ₂)CH ₂ CH(CH ₃) ₂
1552	CH ₂	H	CH ₃	N(CH(CH ₃) ₂)CH(CH ₃)CH ₂ CH ₃
1553	CH ₂	H	CH ₃	N(CH(CH ₃) ₂)CH ₂ CH ₂ Cl
1554	CH ₂	H	CH ₃	N(CH(CH ₃) ₂)CH ₂ CH ₂ OCH ₃
1555	CH ₂	H	CH ₃	N(CH(CH ₃) ₂)CH ₂ CH ₂ SCH ₃
1556	CH ₂	H	CH ₃	N(CH(CH ₃) ₂)CH ₂ COOCH ₃
1557	CH ₂	H	CH ₃	N(CH(CH ₃) ₂)CH ₂ CONH ₂
1558	CH ₂	H	CH ₃	N(CH(CH ₃) ₂)CH ₂ CH=CH ₂
1559	CH ₂	H	CH ₃	N(CH(CH ₃) ₂)CH ₂ C≡CH
1560	CH ₂	H	CH ₃	(CH(CH ₃) ₂)H-Cyclopentyl
1561	CH ₂	H	CH ₃	N(CH(CH ₃) ₂)-Cyclohexyl
1562	CH ₂	H	CH ₃	N(CH(CH ₃) ₂)-Phenyl
1563	CH ₂	H	CH ₃	Morpholin-1-yl
1564	CH ₂	H	CH ₃	Piperidin-1-yl
1565	CH	=	Cl	NH-SO ₂ CH ₃
1566	CH	=	Cl	NH-SO ₂ CH ₂ CH ₃
1567	CH	=	Cl	NH-SO ₂ CH ₂ CH ₂ CH ₃
1568	CH	=	Cl	NH-SO ₂ CH(CH ₃) ₂
1569	CH	=	Cl	NH-SO ₂ C(CH ₃) ₃
1570	CH	=	Cl	NH-SO ₂ CH ₂ Cl
1571	CH	=	Cl	NH-SO ₂ CH ₂ CH ₂ Cl
1572	CH	=	Cl	NH-SO ₂ CH ₂ CH ₂ OCH ₃
1573	CH	=	Cl	NH-SO ₂ CH ₂ CH ₂ SCH ₃
1574	CH	=	Cl	N(CH ₃)-SO ₂ CH ₃
1575	CH	=	Cl	N(CH ₃)-SO ₂ CH ₂ CH ₃
1576	CH	=	Cl	N(CH ₃)-SO ₂ CH ₂ CH ₂ CH ₃
1577	CH	=	Cl	N(CH ₃)-SO ₂ CH(CH ₃) ₂
1578	CH	=	Cl	N(CH ₃)-SO ₂ C(CH ₃) ₃
1579	CH	=	Cl	N(CH ₃)-SO ₂ CH ₂ Cl
1580	CH	=	Cl	N(CH ₃)-SO ₂ CH ₂ CH ₂ Cl
1581	CH	=	Cl	N(CH ₃)-SO ₂ CH ₂ CH ₂ OCH ₃
1582	CH	=	Cl	N(CH ₃)-SO ₂ CH ₂ CH ₂ SCH ₃
1583	CH	=	Cl	N(CH ₂ CH ₃)-SO ₂ CH ₃
1584	CH	=	Cl	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₃
1585	CH	=	Cl	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ CH ₃
1586	CH	=	Cl	N(CH ₂ CH ₃)-SO ₂ CH(CH ₃) ₂
1587	CH	=	Cl	N(CH ₂ CH ₃)-SO ₂ C(CH ₃) ₃
1588	CH	=	Cl	N(CH ₂ CH ₃)-SO ₂ CH ₂ Cl
1589	CH	=	Cl	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ Cl
1590	CH	=	Cl	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ OCH ₃
1591	CH	=	Cl	N(CH ₂ CH ₃)-SO ₂ CH ₂ CH ₂ SCH ₃
1592	CH	=	Cl	NH(CH ₃)
1593	CH	=	Cl	NHCH ₂ CH ₃
1594	CH	=	Cl	NHCH ₂ CH ₂ CH ₃
1595	CH	=	Cl	NHCH(CH ₃) ₂
1596	CH	=	Cl	NHC(CH ₃) ₃
1597	CH	=	Cl	NHCH ₂ CH(CH ₃) ₂

	(Y) _n	R ¹	R ²	R ⁴
1598	CH	=	Cl	NHCH(CH ₃)CH ₂ CH ₃
1599	CH	=	Cl	NHCH ₂ CH ₂ Cl
1600	CH	=	Cl	NHCH ₂ CH ₂ OCH ₃
1601	CH	=	Cl	NHCH ₂ CH ₂ SCH ₃
1602	CH	=	Cl	NHCH ₂ COOCH ₃
1603	CH	=	Cl	NHCH ₂ CONH ₂
1604	CH	=	Cl	NHCH ₂ CH=CH ₂
1605	CH	=	Cl	NHCH ₂ C≡CH
1606	CH	=	Cl	NH-Cyclopentyl
1607	CH	=	Cl	NH-Cyclohexyl
1608	CH	=	Cl	NH-Phenyl
1609	CH	=	Cl	N(CH ₃) ₂
1610	CH	=	Cl	N(CH ₃)CH ₂ CH ₃
1611	CH	=	Cl	N(CH ₃)CH(CH ₃) ₂
1612	CH	=	Cl	N(CH ₃)C(CH ₃) ₃
1613	CH	=	Cl	N(CH ₃)CH ₂ CH ₂ CH ₃
1614	CH	=	Cl	N(CH ₃)CH ₂ CH(CH ₃) ₂
1615	CH	=	Cl	N(CH ₃)CH(CH ₃)CH ₂ CH ₃
1616	CH	=	Cl	N(CH ₃)CH ₂ CH ₂ Cl
1617	CH	=	Cl	N(CH ₃)CH ₂ CH ₂ OCH ₃
1618	CH	=	Cl	N(CH ₃)CH ₂ CH ₂ SCH ₃
1619	CH	=	Cl	N(CH ₃)CH ₂ COOCH ₃
1620	CH	=	Cl	N(CH ₃)CH ₂ CONH ₂
1621	CH	=	Cl	N(CH ₃)CH ₂ CH=CH ₂
1622	CH	=	Cl	N(CH ₃)CH ₂ C≡CH
1623	CH	=	Cl	N(CH ₃)-Cyclopentyl
1624	CH	=	Cl	N(CH ₃)-Cyclohexyl
1625	CH	=	Cl	N(CH ₃)-Phenyl
1626	CH	=	Cl	N(CH ₂ CH ₃) ₂
1627	CH	=	Cl	N(CH ₂ CH ₃)CH(CH ₃) ₂
1628	CH	=	Cl	N(CH ₂ CH ₃)CH ₂ CH ₂ CH ₃
1629	CH	=	Cl	N(CH ₂ CH ₃)C(CH ₃) ₃
1630	CH	=	Cl	N(CH ₂ CH ₃)CH ₂ CH(CH ₃) ₂
1631	CH	=	Cl	N(CH ₂ CH ₃)CH(CH ₃)CH ₂ CH ₃
1632	CH	=	Cl	N(CH ₂ CH ₃)CH ₂ CH ₂ Cl
1633	CH	=	Cl	N(CH ₂ CH ₃)CH ₂ CH ₂ OCH ₃
1634	CH	=	Cl	N(CH ₂ CH ₃)CH ₂ CH ₂ SCH ₃
1635	CH	=	Cl	N(CH ₂ CH ₃)CH ₂ COOCH ₃
1636	CH	=	Cl	N(CH ₂ CH ₃)CH ₂ CONH ₂
1637	CH	=	Cl	N(CH ₂ CH ₃)CH ₂ CH=CH ₂
1638	CH	=	Cl	N(CH ₂ CH ₃)CH ₂ C≡CH
1639	CH	=	Cl	N(CH ₂ CH ₃)-Cyclopentyl
1640	CH	=	Cl	N(CH ₂ CH ₃)-Cyclohexyl
1641	CH	=	Cl	N(CH ₂ CH ₃)-Phenyl
1642	CH	=	Cl	N(CH(CH ₃) ₂) ₂
1643	CH	=	Cl	N(CH(CH ₃) ₂)CH ₂ CH(CH ₃) ₂
1644	CH	=	Cl	N(CH(CH ₃) ₂)CH(CH ₃)CH ₂ CH ₃
1645	CH	=	Cl	N(CH(CH ₃) ₂)CH ₂ CH ₂ Cl
1646	CH	=	Cl	N(CH(CH ₃) ₂)CH ₂ CH ₂ OCH ₃
1647	CH	=	Cl	N(CH(CH ₃) ₂)CH ₂ CH ₂ SCH ₃

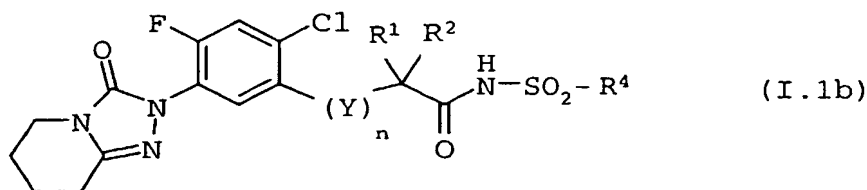
	(Y) _n	R ¹	R ²	R ⁴
1648	CH	=	Cl	N(CH(CH ₃) ₂)CH ₂ COOCH ₃
1649	CH	=	Cl	N(CH(CH ₃) ₂)CH ₂ CONH ₂
1650	CH	=	Cl	N(CH(CH ₃) ₂)CH ₂ CH=CH ₂
1651	CH	=	Cl	N(CH(CH ₃) ₂)CH ₂ C≡CH
1652	CH	=	Cl	(CH(CH ₃) ₂)H-Cyclopentyl
1653	CH	=	Cl	N(CH(CH ₃) ₂)-Cyclohexyl
1654	CH	=	Cl	N(CH(CH ₃) ₂)-Phenyl
1655	CH	=	Cl	Morpholin-1-yl
1656	CH	=	Cl	Piperidin-1-yl

Particularly preferred compounds of the general formula I are the compounds of the general formula I.1a' as indicated below (compounds I in which Q = Q1a, R³ = H, X¹ and X² are chlorine), in which (Y)_n, R¹, R² and R⁴ have the meanings as indicated above.



Examples of compounds of formula I.1a' are those, wherein (Y)_n, R¹, R² and R⁴ have the meanings as given in line Nos 1 to 1656 of Table 1. These compounds are also designated below as compounds I.1a'.1 to I.1a'.1656.

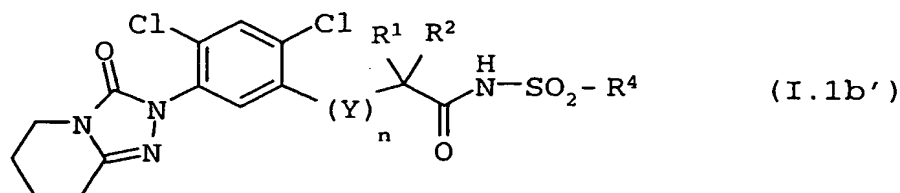
Particularly preferred compounds of the general formula I are the compounds of the general formula I.1b as indicated below (compounds I in which Q = Q1b, R³ = H, X¹ is fluorine and X² is chlorine), in which (Y)_n, R¹, R² and R⁴ have the meanings as indicated above.



Examples of compounds of formula I.1b are those, wherein (Y)_n, R¹, R² and R⁴ have the meanings as given in line Nos 1 to 1656 of Table 1. These compounds are also designated below as compounds I.1b.1 to I.1b.1656.

Particularly preferred compounds of the general formula I are the compounds of the general formula I.1b' as indicated below (compounds I in which $Q = Q1b$, $R^3 = H$, X^1 and X^2 are chlorine), in which $(Y)_n$, R^1 , R^2 and R^4 have the meanings as indicated above.

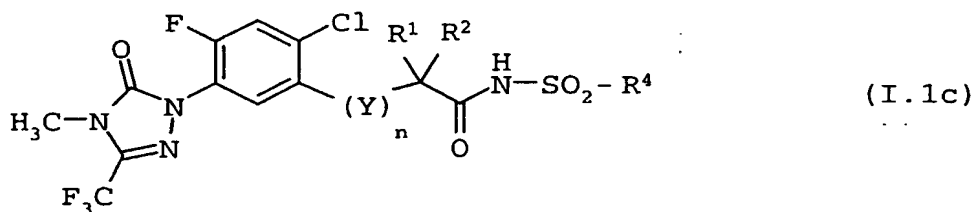
5



Examples of compounds of formula I.1b' are those, wherein $(Y)_n$, R^1 , R^2 and R^4 have the meanings as given in line Nos 1 to 1656 of Table 1. These compounds are also designated below as compounds I.1b'.1 to I.1b'.1656

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Particularly preferred compounds of the general formula I are the compounds of the general formula I.1c as indicated below (compounds I in which $Q = Q1c$, $R^3 = H$, X^1 is fluorine and X^2 is chlorine), in which $(Y)_n$, R^1 , R^2 and R^4 have the meanings as indicated above.

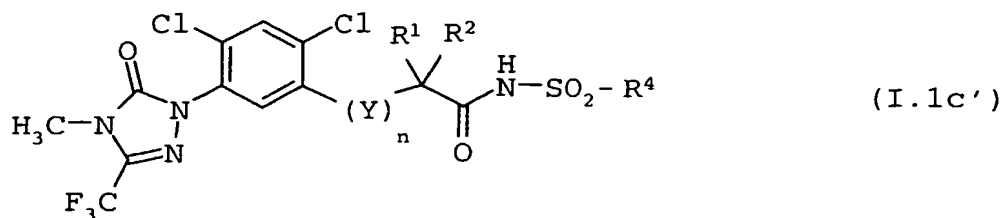


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Examples of compounds of formula I.1c are those, wherein $(Y)_n$, R^1 , R^2 and R^4 have the meanings as given in line Nos 1 to 1656 of Table 1. These compounds are also designated below as compounds I.1c.1 to I.1c.1656.

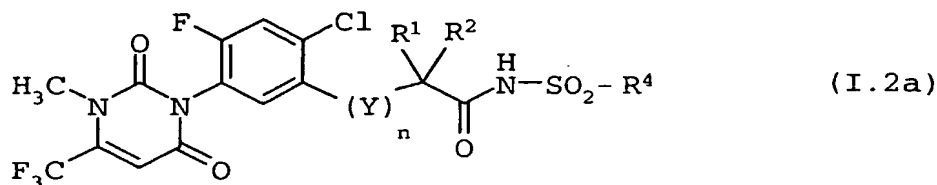
Particularly preferred compounds of the general formula I are the compounds of the general formula I.1c' as indicated below (compounds I in which $Q = Q1c$, $R^3 = H$, X^1 and X^2 are chlorine), in which $(Y)_n$, R^1 , R^2 and R^4 have the meanings as indicated above.

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Examples of compounds of formula I.1c' are those, wherein $(Y)_n$, R^1 , R^2 and R^4 have the meanings as given in line Nos 1 to 1656 of Table 1. These compounds are also designated below as compounds I.1c'.1 to I.1c'.1656.

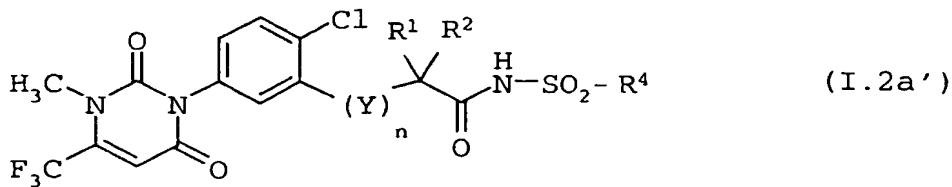
- 5 Particularly preferred compounds of the general formula I are the compounds of the general formula I.2a as indicated below (compounds I in which $Q = Q2a$, $R^3 = H$, X^1 is fluorine and X^2 is chlorine), in which $(Y)_n$, R^1 , R^2 and R^4 have the meanings as indicated above.



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Examples of compounds of formula I.2a are those, wherein $(Y)_n$, R^1 , R^2 and R^4 have the meanings as given in line Nos 1 to 1656 of Table 1. These compounds are also designated below as compounds I. 2a .1 to I. 2a.1656.

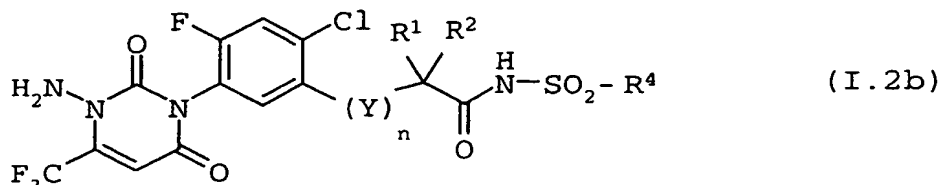
- 15 Particularly preferred compounds of the general formula I are the compounds of the general formula I.2a' as indicated below (compounds I in which $Q = Q2a$, $R^3 = X^1 = H$ and X^2 is chlorine), in which $(Y)_n$, R^1 , R^2 and R^4 have the meanings as indicated above.



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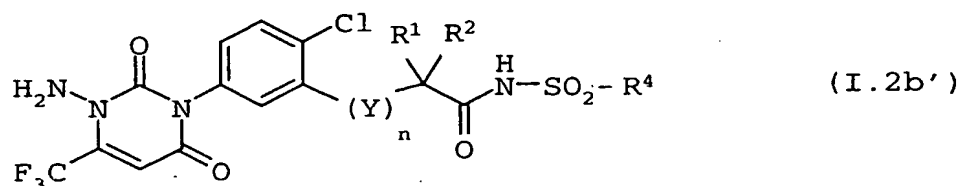
Examples of compounds of formula I.2a' are those, wherein $(Y)_n$, R^1 , R^2 and R^4 have the meanings as given in line Nos 1 to 1656 of Table 1. These compounds are also designated below as compounds I. 2a' .1 to I. 2a'.1656.

Particularly preferred compounds of the general formula I are the compounds of the general formula I.2b as indicated below (compounds I in which $Q = Q2b$, $R^3 = H$, X^1 is fluorine and X^2 is chlorine), in which $(Y)_n$, R^1 , R^2 and R^4 have the meanings as indicated above.



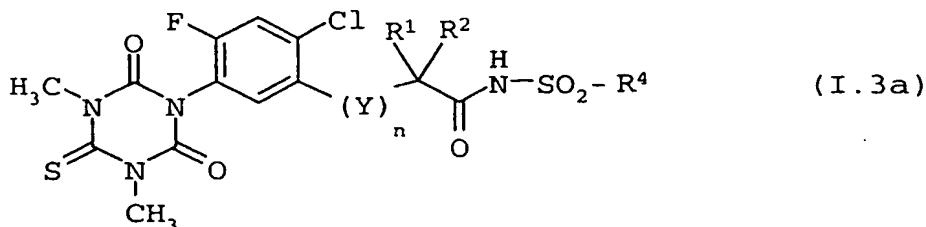
Examples of compounds of formula I.2b are those, wherein $(Y)_n$, R^1 , R^2 and R^4 have the meanings as given in line Nos 1 to 1656 of Table 1. These compounds are also designated below as compounds I. 2b .1 to I. 2b.1656.

Particularly preferred compounds of the general formula I are the compounds of the general formula I.2b' as indicated below (compounds I in which $Q = Q2b$, $R^3 = H$, X^1 is H and X^2 is chlorine), in which $(Y)_n$, R^1 , R^2 and R^4 have the meanings as indicated above.



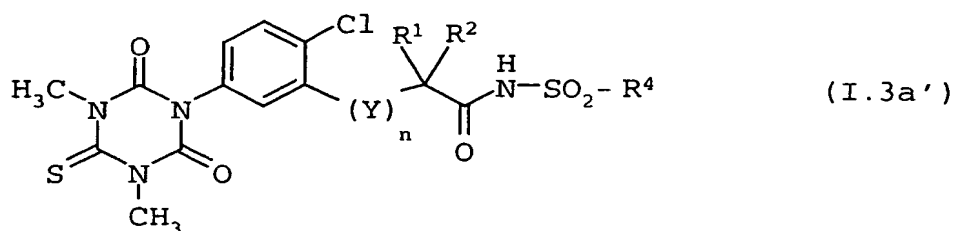
Examples of compounds of formula I.2b' are those, wherein $(Y)_n$, R^1 , R^2 and R^4 have the meanings as given in line Nos 1 to 1656 of Table 1. These compounds are also designated below as compounds I. 2b' .1 to I. 2b'.1656.

Particularly preferred compounds of the general formula I are the compounds of the general formula I.3a as indicated below (compounds I in which $Q = Q3a$, $R^3 = H$, X^1 is fluorine and X^2 is chlorine), in which $(Y)_n$, R^1 , R^2 and R^4 have the meanings as indicated above.



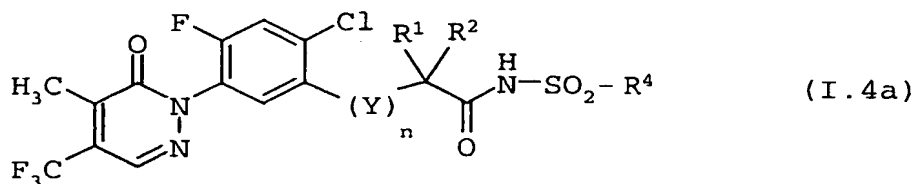
Examples of compounds of formula I.3a are those, wherein $(Y)_n$, R^1 , R^2 and R^4 have the meanings as given in line Nos 1 to 1656 of Table 1. These compounds are also designated below as compounds I. 3a .1 to I. 3a.1656.

Particularly preferred compounds of the general formula I are the compounds of the general formula I.3a' as indicated below (compounds I in which $Q = Q3a$, $R^3 = H$, X^1 is H and X^2 is chlorine), in which $(Y)_n$, R^1 , R^2 and R^4 have the meanings as indicated above.



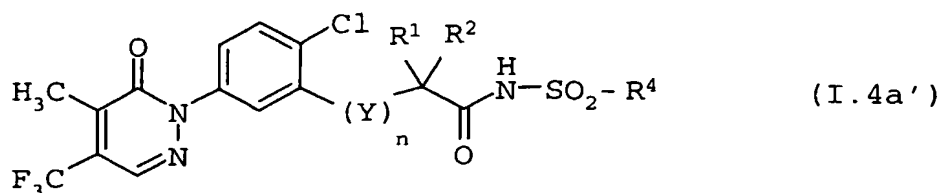
Examples of compounds of formula I.3a' are those, wherein $(Y)_n$, R^1 , R^2 and R^4 have the meanings as given in line Nos 1 to 1656 of Table 1. These compounds are also designated below as compounds I. 3a' .1 to I. 3a'.1656.

Particularly preferred compounds of the general formula I are the compounds of the general formula I.4a as indicated below (compounds I in which $Q = Q4a$, $R^3 = H$, X^1 is fluorine and X^2 is chlorine), in which $(Y)_n$, R^1 , R^2 and R^4 have the meanings as indicated above.



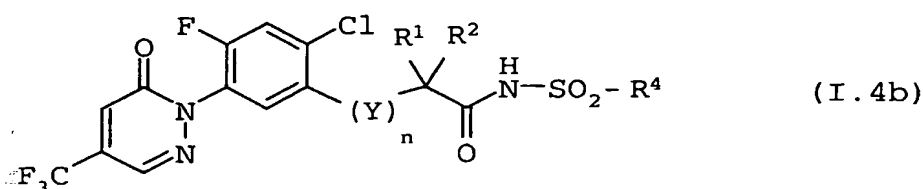
Examples of compounds of formula I.4a are those, wherein $(Y)_n$, R^1 , R^2 and R^4 have the meanings as given in line Nos 1 to 1656 of Table 1. These compounds are also designated below as compounds I. 4a .1 to I. 4a.1656.

Particularly preferred compounds of the general formula I are the compounds of the general formula I.4a' as indicated below (compounds I in which $Q = Q4a$, $R^3 = H$, X^1 is H and X^2 is chlorine), in which $(Y)_n$, R^1 , R^2 and R^4 have the meanings as indicated above.



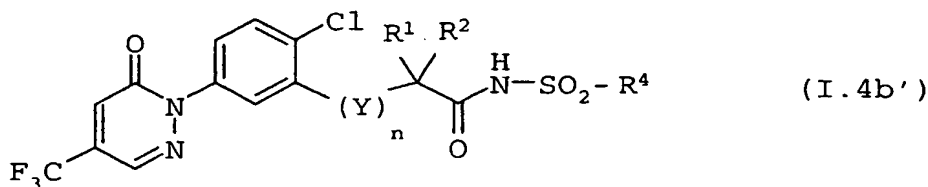
Examples of compounds of formula I.4a' are those, wherein $(Y)_n$, R^1 , R^2 and R^4 have the meanings as given in line Nos 1 to 1656 of Table 1. These compounds are also designated below as compounds I. 4a'.1 to I. 4a'.1656.

- 5 Particularly preferred compounds of the general formula I are the compounds of the general formula I.4b as indicated below (compounds I in which $Q = Q4b$, $R^3 = H$, X^1 is fluorine and X^2 is chlorine), in which $(Y)_n$, R^1 , R^2 and R^4 have the meanings as indicated above.



- 10 Examples of compounds of formula I.4b are those, wherein $(Y)_n$, R^1 , R^2 and R^4 have the meanings as given in line Nos 1 to 1656 of Table 1. These compounds are also designated below as compounds I.4b.1 to I.4b.1656.

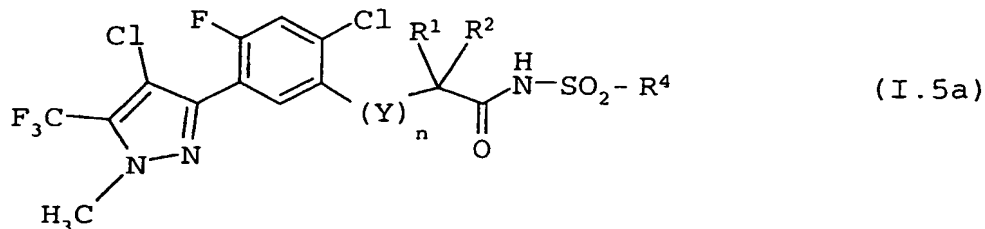
- Particularly preferred compounds of the general formula I are the compounds of the general formula I.4b' as indicated below (compounds I in which $Q = Q4b$, $R^3 = H$, X^1 is H and X^2 is chlorine), in which $(Y)_n$, R^1 , R^2 and R^4 have the meanings as indicated above.



- 20 Examples of compounds of formula I.4b' are those, wherein $(Y)_n$, R^1 , R^2 and R^4 have the meanings as given in line Nos 1 to 1656 of Table 1. These compounds are also designated below as compounds I.4b'.1 to I.4b'.1656.

Particularly preferred compounds of the general formula I are the compounds of the general formula I.5a as indicated below (compounds I in which $Q = Q5a$, $R^3 = H$,

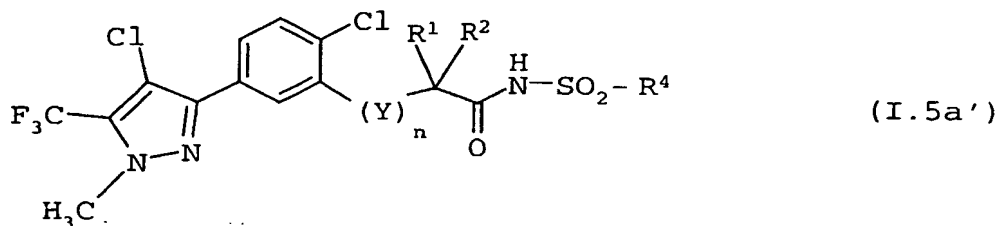
X^1 is fluorine and X^2 is chlorine), in which $(Y)_n$, R^1 , R^2 and R^4 have the meanings as indicated above.



5 Examples of compounds of formula I.5a are those, wherein $(Y)_n$, R^1 , R^2 and R^4 have the meanings as given in line Nos 1 to 1656 of Table 1. These compounds are also designated below as compounds I. 5a .1 to I. 5a.1656.

Particularly preferred compounds of the general formula I are the compounds of the general formula I.5a' as indicated below (compounds I in which $Q = Q5a$, $R^3 = H$, X^1 is H and X^2 is chlorine), in which $(Y)_n$, R^1 , R^2 and R^4 have the meanings as indicated above.

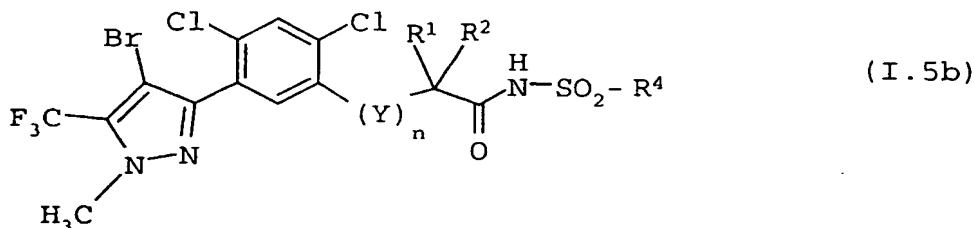
10



Examples of compounds of formula I.5a' are those, wherein $(Y)_n$, R^1 , R^2 and R^4 have the meanings as given in line Nos 1 to 1656 of Table 1. These compounds are also designated below as compounds I. 5a' .1 to I. 5a'.1656.

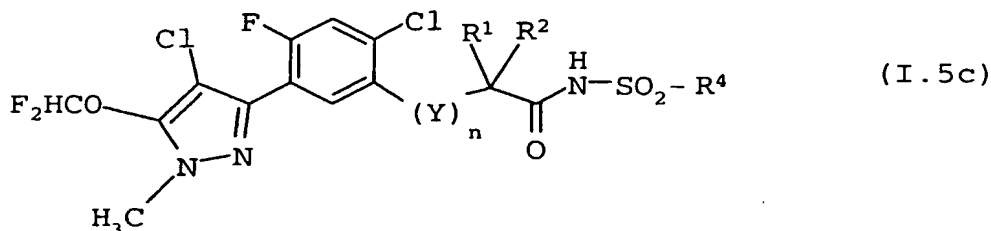
15

Particularly preferred compounds of the general formula I are the compounds of the general formula I.5b as indicated below (compounds I in which $Q = Q5b$, $R^3 = H$, X^1 and X^2 are chlorine), in which $(Y)_n$, R^1 , R^2 and R^4 have the meanings as indicated above.



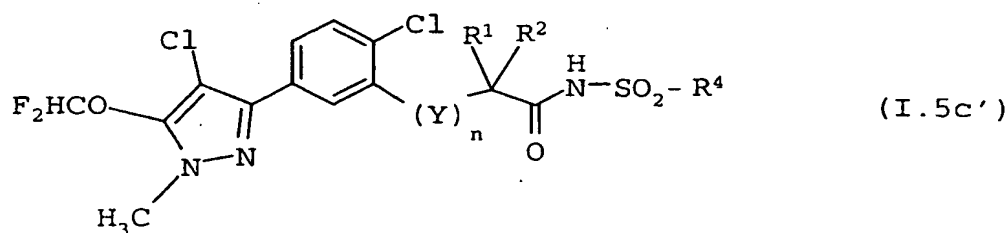
Examples of compounds of formula I.5b are those, wherein $(Y)_n$, R^1 , R^2 and R^4 have the meanings as given in line Nos 1 to 1656 of Table 1. These compounds are also designated below as compounds I.5b.1 to I.5b.1656.

Particularly preferred compounds of the general formula I are the compounds of the general formula I.5c as indicated below (compounds I in which $Q = Q5c$, $R^3 = H$, X^1 is fluorine and X^2 is chlorine), in which $(Y)_n$, R^1 , R^2 and R^4 have the meanings as indicated above.



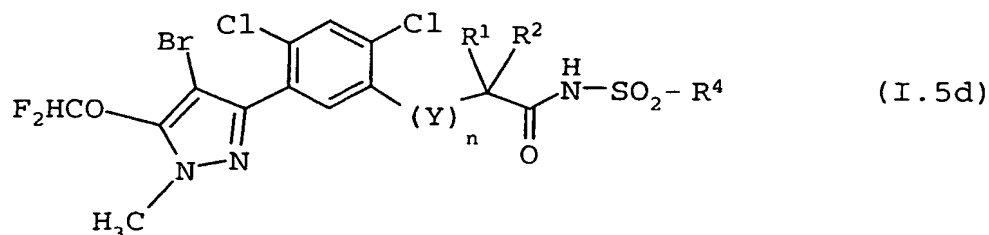
Examples of compounds of formula I.5c are those, wherein $(Y)_n$, R^1 , R^2 and R^4 have the meanings as given in line Nos 1 to 1656 of Table 1. These compounds are also designated below as compounds I.5c.1 to I.5c.1656.

Particularly preferred compounds of the general formula I are the compounds of the general formula I.5c' as indicated below (compounds I in which $Q = Q5c$, $R^3 = H$, X^1 is H and X^2 is chlorine), in which $(Y)_n$, R^1 , R^2 and R^4 have the meanings as indicated above.



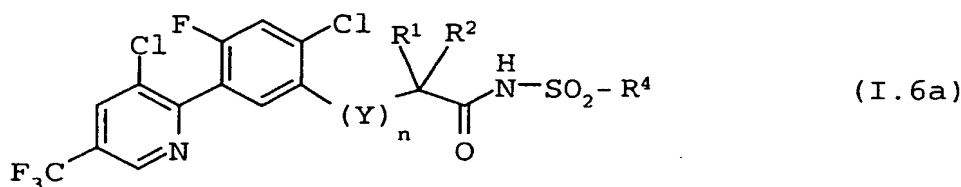
Examples of compounds of formula I.5c' are those, wherein $(Y)_n$, R^1 , R^2 and R^4 have the meanings as given in line Nos 1 to 1656 of Table 1. These compounds are also designated below as compounds I.5c'.1 to I.5c'.1656.

Particularly preferred compounds of the general formula I are the compounds of the general formula I.5d as indicated below (compounds I in which $Q = Q5d$, $R^3 = H$, X^1 and X^2 are chlorine), in which $(Y)_n$, R^1 , R^2 and R^4 have the meanings as indicated above.



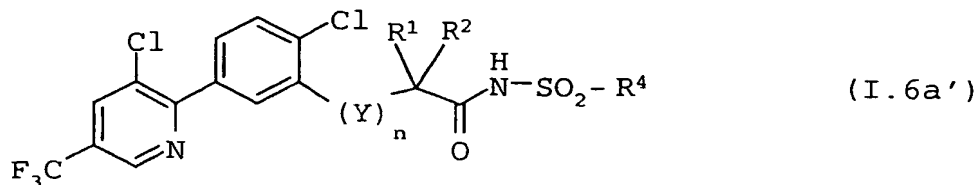
Examples of compounds of formula I.5d are those, wherein $(Y)_n$, R^1 , R^2 and R^4 have the meanings as given in line Nos 1 to 1656 of Table 1. These compounds are also designated below as compounds I.5d.1 to I.5d.1656.

- 5 Particularly preferred compounds of the general formula I are the compounds of the general formula I.6a as indicated below (compounds I in which $Q = Q6a$, $R^3 = H$, X^1 is fluorine and X^2 is chlorine), in which $(Y)_n$, R^1 , R^2 and R^4 have the meanings as indicated above.



- 10 Examples of compounds of formula I.6a are those, wherein $(Y)_n$, R^1 , R^2 and R^4 have the meanings as given in line Nos 1 to 1656 of Table 1. These compounds are also designated below as compounds I.6a.1 to I.6a.1656.

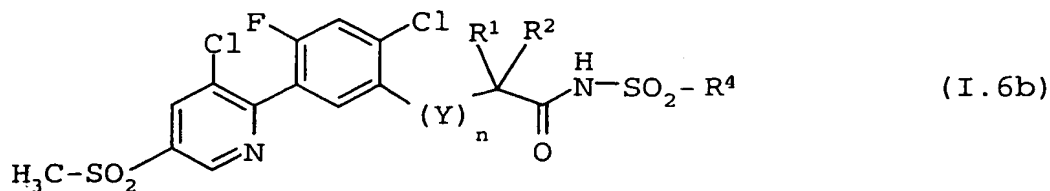
- 15 Particularly preferred compounds of the general formula I are the compounds of the general formula I.6a' as indicated below (compounds I in which $Q = Q6a$, $R^3 = H$, X^1 is H and X^2 is chlorine), in which $(Y)_n$, R^1 , R^2 and R^4 have the meanings as indicated above.



- 20 Examples of compounds of formula I.6a' are those, wherein $(Y)_n$, R^1 , R^2 and R^4 have the meanings as given in line Nos 1 to 1656 of Table 1. These compounds are also designated below as compounds I.6a'.1 to I.6a'.1656.

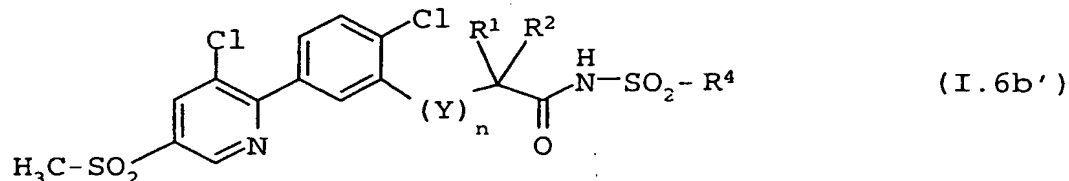
Particularly preferred compounds of the general formula I are the compounds of the general formula I.6b as indicated below (compounds I in which $Q = Q6b$, $R^3 = H$,

X¹ is fluorine and X² is chlorine), in which (Y)_n, R¹, R² and R⁴ have the meanings as indicated above.



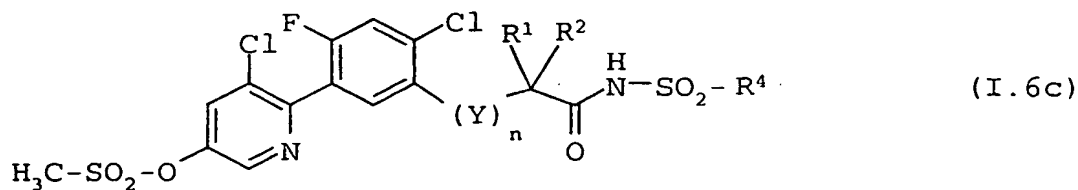
Examples of compounds of formula I.6b are those, wherein (Y)_n, R¹, R² and R⁴ have the meanings as given in line Nos 1 to 1656 of Table 1. These compounds are also designated below as compounds I.6b.1 to I.6b.1656.

Particularly preferred compounds of the general formula I are the compounds of the general formula I.6b' as indicated below (compounds I in which Q = Q6b, R³ = H, X¹ is H and X² is chlorine), in which (Y)_n, R¹, R² and R⁴ have the meanings as indicated above.



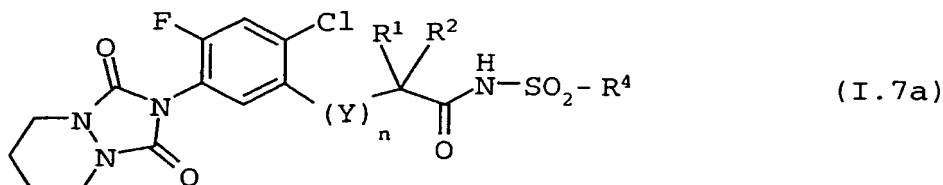
Examples of compounds of formula I.6b' are those, wherein (Y)_n, R¹, R² and R⁴ have the meanings as given in line Nos 1 to 1656 of Table 1. These compounds are also designated below as compounds I.6b'.1 to I.6b'.1656.

Particularly preferred compounds of the general formula I are the compounds of the general formula I.6c as indicated below (compounds I in which Q = Q6c, R³ = H, X¹ is fluorine and X² is chlorine), in which (Y)_n, R¹, R² and R⁴ have the meanings as indicated above.



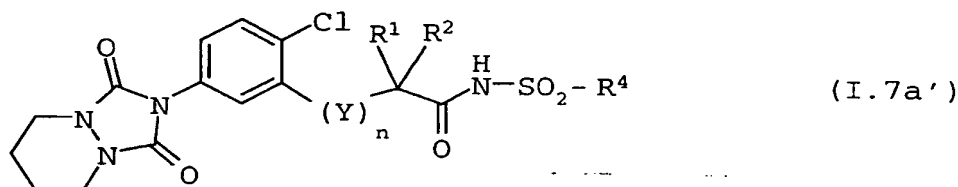
Examples of compounds of formula I.6c are those, wherein (Y)_n, R¹, R² and R⁴ have the meanings as given in line Nos 1 to 1656 of Table 1. These compounds are also designated below as compounds I.6c.1 to I.6c.1656.

Particularly preferred compounds of the general formula I are the compounds of the general formula I.7a as indicated below (compounds I in which $Q = Q7a$, $R^3 = H$, X^1 is fluorine and X^2 is chlorine), in which $(Y)_n$, R^1 , R^2 and R^4 have the meanings as indicated above.



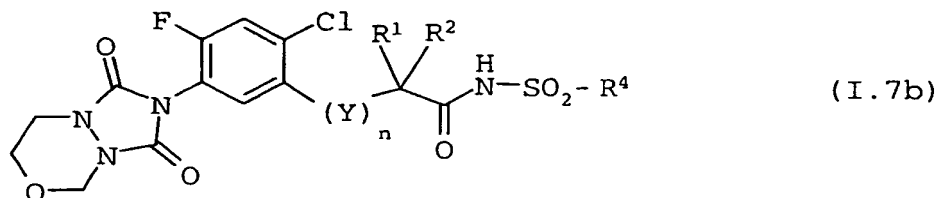
Examples of compounds of formula I.7a are those, wherein $(Y)_n$, R^1 , R^2 and R^4 have the meanings as given in line Nos 1 to 1656 of Table 1. These compounds are also designated below as compounds I. 7a .1 to I. 7a.1656.

Particularly preferred compounds of the general formula I are the compounds of the general formula I.7a' as indicated below (compounds I in which $Q = Q7a$, $R^3 = H$, X^1 is H and X^2 is chlorine), in which $(Y)_n$, R^1 , R^2 and R^4 have the meanings as indicated above.



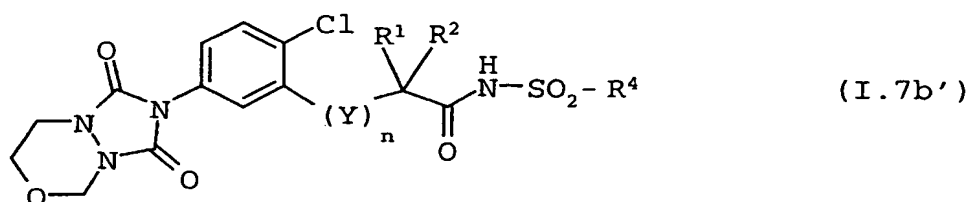
Examples of compounds of formula I.7a' are those, wherein $(Y)_n$, R^1 , R^2 and R^4 have the meanings as given in line Nos 1 to 1656 of Table 1. These compounds are also designated below as compounds I. 7a' .1 to I. 7a'.1656.

Particularly preferred compounds of the general formula I are the compounds of the general formula I.7b as indicated below (compounds I in which $Q = Q7b$, $R^3 = H$, X^1 is fluorine and X^2 is chlorine), in which $(Y)_n$, R^1 , R^2 and R^4 have the meanings as indicated above.



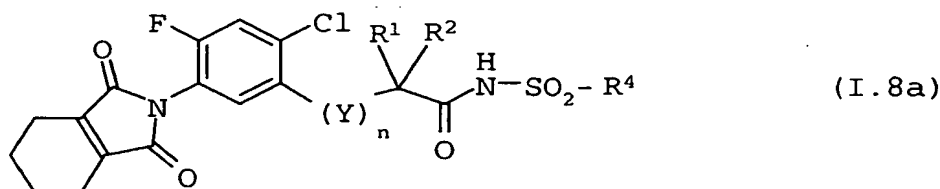
Examples of compounds of formula I.7b are those, wherein $(Y)_n$, R^1 , R^2 and R^4 have the meanings as given in line Nos 1 to 1656 of Table 1. These compounds are also designated below as compounds I. 7b .1 to I. 7b.1656.

Particularly preferred compounds of the general formula I are the compounds of the general formula I.7b' as indicated below (compounds I in which $Q = Q7b$, $R^3 = H$, X^1 is H and X^2 is chlorine), in which $(Y)_n$, R^1 , R^2 and R^4 have the meanings as indicated above.



Examples of compounds of formula I.7b' are those, wherein $(Y)_n$, R^1 , R^2 and R^4 have the meanings as given in line Nos 1 to 1656 of Table 1. These compounds are also designated below as compounds I. 7b' .1 to I. 7b'.1656.

Particularly preferred compounds of the general formula I are the compounds of the general formula I.8a as indicated below (compounds I in which $Q = Q8a$, $R^3 = H$, X^1 is fluorine and X^2 is chlorine), in which $(Y)_n$, R^1 , R^2 and R^4 have the meanings as indicated above.



Examples of compounds of formula I.8a are those, wherein $(Y)_n$, R^1 , R^2 and R^4 have the meanings as given in line Nos 1 to 1656 of Table 1. These compounds are also designated below as compounds I. 8a .1 to I.8a.1656.

Particular desirable compounds include: Propane-2-sulfonic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenylsulfanyl]-propionyl}-amide ; Dimethyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenylsulfanyl]-propionyl}-amide; Isopropyl-methyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-

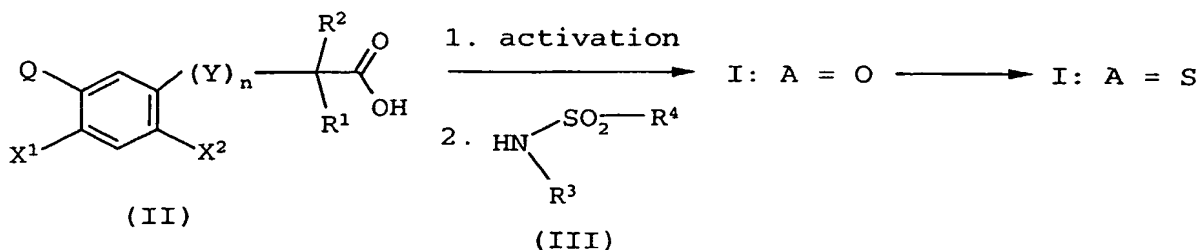
phenylsulfanyl]-propionyl}-amide; Methyl-phenyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenylsulfanyl]-propionyl}-amide; Propane-2-sulfonic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenoxy]-acetyl}-amide; Propane-2-sulfonic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenylsulfanyl]-acetyl}-amide; Dimethyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenoxy]-acetyl}-amide; Dimethyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenylsulfanyl]-acetyl}-amide; Dimethyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenyl]-acetyl}-amide; Isopropyl-methyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenyl]-acetyl}-amide; Isopropyl-methyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenyl]-propionyl}-amide; Isopropyl-methyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenylsulfanyl]-acetyl}-amide; Isopropyl-methyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenoxy]-acetyl}-amide; Methyl-phenyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenyl]-acetyl}-amide; Methyl-phenyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenyl]-propionyl}-amide; Methyl-phenyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenylsulfanyl]-acetyl}-amide; Methyl-phenyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenoxy]-acetyl}-amide; Propane-2-sulfonic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenylamino]-acetyl}-amide; Dimethyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenylamino]-acetyl}-amide; Isopropyl-methyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenoxy]-propionyl}-amide; Dimethyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-

trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenoxy]-2-methyl-propionyl}-amide;
Dimethyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenoxy]-propionyl}-amide;
Dimethyl-sulfamic acid 2-chloro-4-fluoro-5-(5-methyl-6-oxo-4-trifluoromethyl-6H-pyridazin-1-yl)-benzoylamide; Methyl-phenyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenoxy]-propionyl}-amide; and Methyl-phenyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenylamino]-acetyl}-amide.

Even more desirable compounds are: Propane-2-sulfonic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenylsulfanyl]-propionyl}-amide ; Dimethyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenylsulfanyl]-propionyl}-amide; Isopropyl-methyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenylsulfanyl]-propionyl}-amide; Methyl-phenyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenylsulfanyl]-propionyl}-amide; Dimethyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenylsulfanyl]-acetyl}-amide; Dimethyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenyl]-propionyl}-amide; Isopropyl-methyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenyl]-propionyl}-amide; Isopropyl-methyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenoxy]-propionyl}-amide; and Dimethyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenoxy]-propionyl}-amide.

The compounds useful in the present invention may be readily synthesized using techniques generally known to synthetic organic chemists. The present compositions may be prepared in a known manner, for example by homogeneously mixing or grinding the active ingredient(s) with other ingredients. Additional components may be admixed with the composition at any point during the process, including during and/or after any mixing step of the herbicide components.

The key step in the synthesis of the compounds of formula I is the activation of an acid of formula II and subsequent reaction with a sulfamid of the formula III as shown in scheme 1:

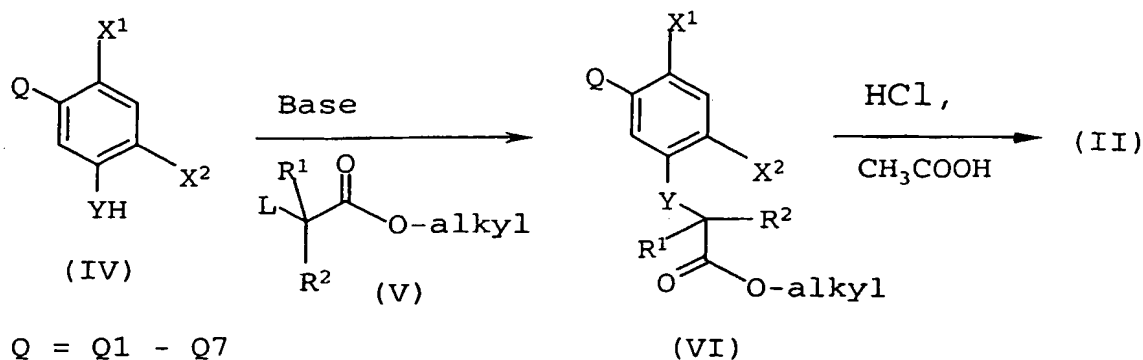


In scheme 1 the variables X^1 , X^2 , Q, Y, n, R^1 to R^4 have the meanings as defined above. R^3 is preferably H.

The reaction of II with the sulfamide III by activation can be performed e.g. according to the methods described in WO 01/83459 p 31 ff. Methods of activating carboxylic acids are also known from e.g. Houben-Weyl, Methoden der Org. Chemie Vol E5, (1985) part 1, pp. 587 ff. and Vol E5, (1985) part 2, pp. 934 ff. and can be applied to the compounds II. For example activation of II can be achieved by transferring the COOH group of II into the corresponding acid halide, preferably into its acid chloride, or by reacting II with III in the presence of a dehydrating agent such as carbonyl diimidazole or dicyclohexyl carbodiimide

The sulfamides III are either known from the literature or can be prepared according to the methods disclosed in Houben-Weyl, Methoden der Org. Chemie Vol E11. (1985) S 1019, G. Hamprecht, Angew. Chem. 93, 151-163 and

The acids II are either known from the literature, e.g. from EP-A 361114, EP-A 300387, WO 96/39392, WO 97/07104, DE 19754348, WO 99/52878, WO 01/79182, US 5,783,522, US 6,090,753 or can be prepared according to methods known from the literature. When Y is O, NH or S acids II can be prepared by the synthetic route as outlined in scheme 2:



In scheme 2 the variables X^1 , X^2 , R^1 and R^2 are as defined above. L is usually halogen, preferably chlorine, bromine or iodine. Alkyl is preferably methyl or ethyl.

The conditions required for the reaction of IV with V to obtain VI and subsequent hydrolysis of the ester VI to obtain the acid II are well known to a skilled person, e.g. from WO 97/07104.

Compounds IV are known, e.g.

for $Q = Q1$ from US 4,806,145, US 4,743,291, US 5,035,740, US 4,818,275, WO 87/03782 (Compound IV with $Q = Q1$, $A^1 = O$, $R^7 = CH_3$, $R^8 = CHF_2$, $X^1 = F$, $X^2 = Cl$, $YH = OH$: CAS-Nr. 97986-19-1; $Q = Q1$, $A^1 = O$, $R^7 = CH_3$, $R^8 = CHF_2$, $X^1 = F$, $X^2 = Cl$, $YH = NH_2$: CAS-Nr. 111992-07-5; $Q = Q1$, $A^1 = O$, R^7 and $R^8 = -(CH_2)_4-$, $X^1 = F$, $X^2 = Cl$, $YH = OH$: CAS-Nr. 292856-11-2);

for $Q = Q2$ from EP 1122244, WO 9838188, WO 93/14073, US 6,303,783, WO 98/47904, US 5753595, WO 97/08170 (Compound IV with $Q = Q2$, $A^2, A^3 = O$, $R^9 = CH_3$, $R^{10} = CF_3$, $R^{11} = H$, $X^1 = F$, $X_2 = Cl$, $YH = OH$: Cas-Nr. 114136-60-6; $Q = Q2$, $A^2, A^3 = O$, $R^9 = CH_3$, $R^{10} = CF_3$, $R^{11} = H$, $X^1 = F$, $X_2 = Cl$, $YH = SH$: Cas-Nr. 353292-92-9; $Q = Q2$, $A^2, A^3 = O$, $R^9 = CH_3$, $R^{10} = CF_3$, $R^{11} = H$, $X^1 = F$, $X_2 = Cl$, $YH = NH_2$: Cas-Nr. 114136-76-4).

for $Q = Q3$ from WO 00/50409 (Compound IV with $Q = Q3$ with $R^{12}, R^{13} = CH_3$, $A^4, A^6 = O$, $A^5 = S$, $X^1 = F$, $X^2 = Cl$, $YH = OH$, Cas-Nr. 289882-54-8);

for $Q = Q4$ from WO 97/07104, WO 99/52878, US 6,090,753, WO 01/79182 (Compound IV with $Q = Q4$: $A^7 = O$, $R^{14} = CF_3$, $R^{15} = H$, $X^1 = F$, $X^2 = Cl$, $Y = OH$: Cas-Nr. 188489-77-2);

$Q = Q5$ from WO 92/06962, (Compound IV with $Q = Q5$ $R^{16} = CH_3$, $R^{17} = CF_3$, $R^{18} = Cl$, $X^1 = F$, $X^2 = Cl$, $Y = OH$, Cas-Nr. 142625-52-3; $Q = Q5$, $R^{16} = CH_3$, $R^{17} = CF_3$,

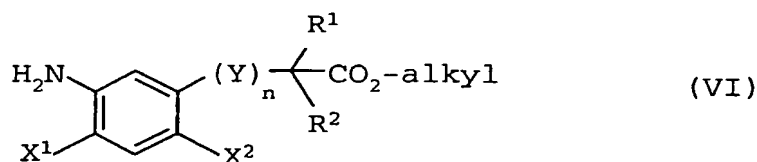
$R^{18} = \text{Cl}$, $X^1 = \text{F}$, $X^2 = \text{Cl}$, $Y = \text{NH}_2$, Cas-Nr. 142621-86-1; $Q = Q5$, $R^{16} = \text{CH}_3$, $R^{17} = \text{CF}_3$,
 $R^{18} = \text{Cl}$, $X^1 = \text{F}$, $X^2 = \text{Cl}$, $Y = \text{SH}$, Cas-Nr. 142625-68-1; $Q = Q5$, $R^{16} = \text{CH}_3$, $R^{17} =$
 OCHF_2 , $R^{18} = \text{Cl}$, $X^1 = \text{F}$, $X^2 = \text{Cl}$, $Y = \text{OH}$, Cas-Nr. 129631-56-7 ; $Q = Q5$, $R^{16} = \text{CH}_3$,
 $R^{17} = \text{OCHF}_2$, $R^{18} = \text{Cl}$, $X^1 = \text{F}$, $X^2 = \text{Cl}$, $Y = \text{NH}_2$, Cas-Nr. 129631-55-6; $Q = Q5$, $R^{16} =$
 CH_3 , $R^{17} = \text{OCHF}_2$, $R^{18} = \text{Cl}$, $X^1 = \text{F}$, $X^2 = \text{Cl}$, $Y = \text{SH}$, Cas-Nr. 129630-96-2);

for $Q = Q6$: from WO 95/02580 and WO 02/42275 ($Q = Q6$, $R^{19} = \text{Cl}$, $R^{20} = \text{H}$,
 $R^{21} = \text{CF}_3$, $R^{22} = \text{H}$, $X^1 = \text{F}$, $X^2 = \text{Cl}$, $Y = \text{OH}$, Cas-Nr. 180153-43-9; $Q = Q6$, $R^{19} = \text{Cl}$, $R^{20} =$
 H , $R^{21} = \text{CF}_3$, $R^{22} = \text{H}$, $X^1 = \text{F}$, $X^2 = \text{Cl}$, $Y = \text{NH}_2$, Cas-Nr. 195304-19-9)

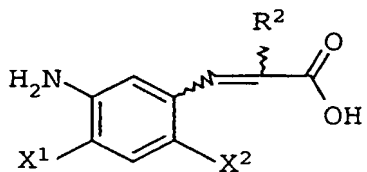
for $Q = Q7$ from WO 94/10173, EP 211805 ($Q = Q7$, $A^8 = A^9 = \text{O}$, $R^{23} - R^{24} = -$
 $(\text{CH}_2)_4-$, $X^1 = \text{F}$, $X^2 = \text{Cl}$, $Y = \text{OH}$, Cas-Nr. 98417-20-0).

Compounds of formula IV, which are not specifically mentioned in the
 references cited, can be obtained in analogous manner.

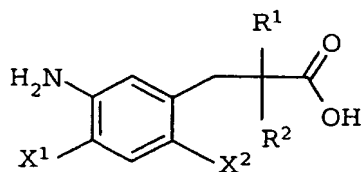
Compounds of the formula II can be also prepared starting from aniline
 compounds of the formula VI,



wherein X^1 , X^2 , Y , n , R^1 and R^2 are as defined above and Q is $Q1 - Q4$, $Q7$ or $Q8$
 by routine methods in the synthesis of heterocycles, or in analogy to the methods
 described in the schemes below. For example, compounds, wherein Y is CH= or CH_2 ,
 can be prepared starting from aminocinnamic acid derivatives of the formulas VIa or
 VIb



(VIa)

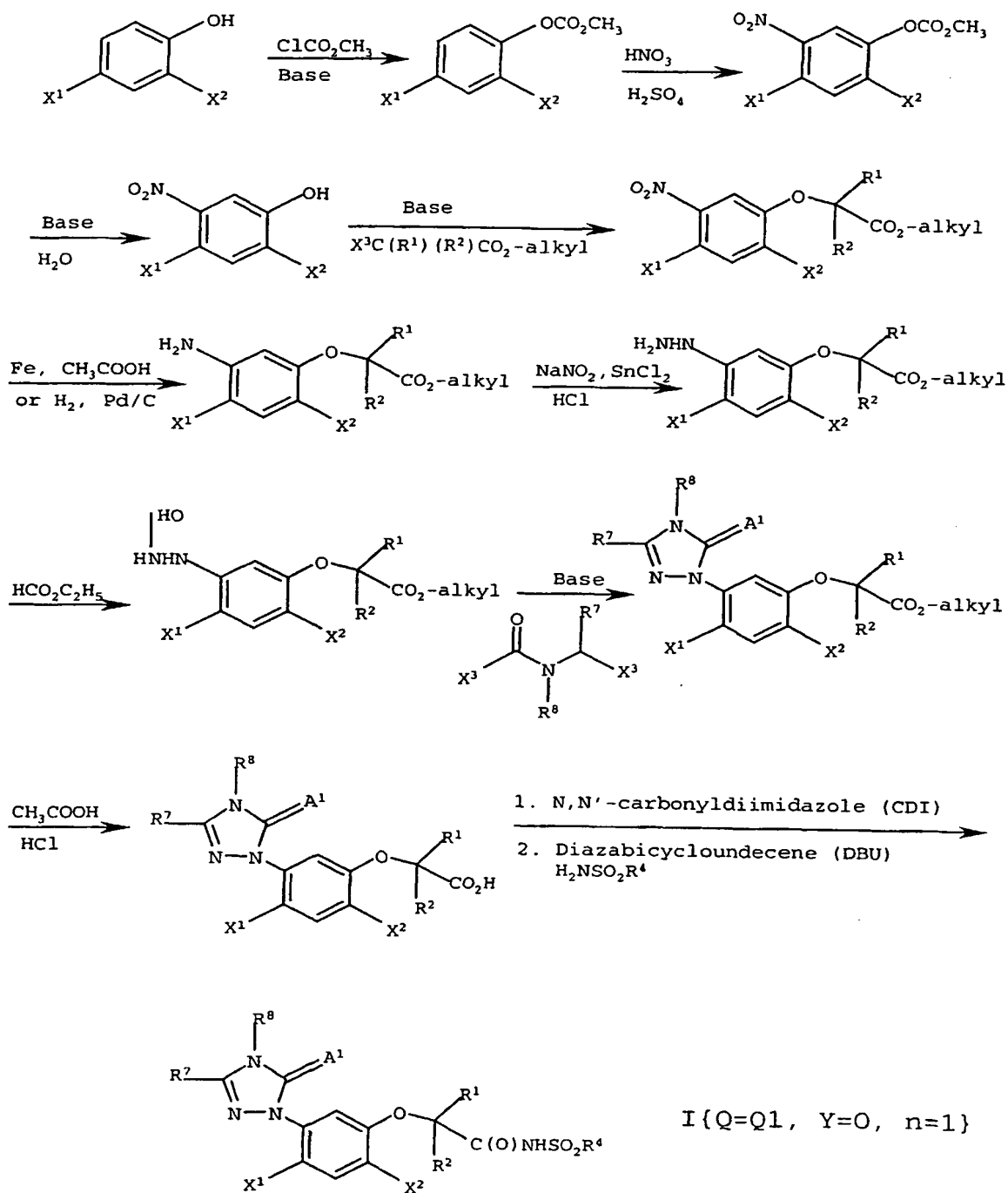


(VIb)

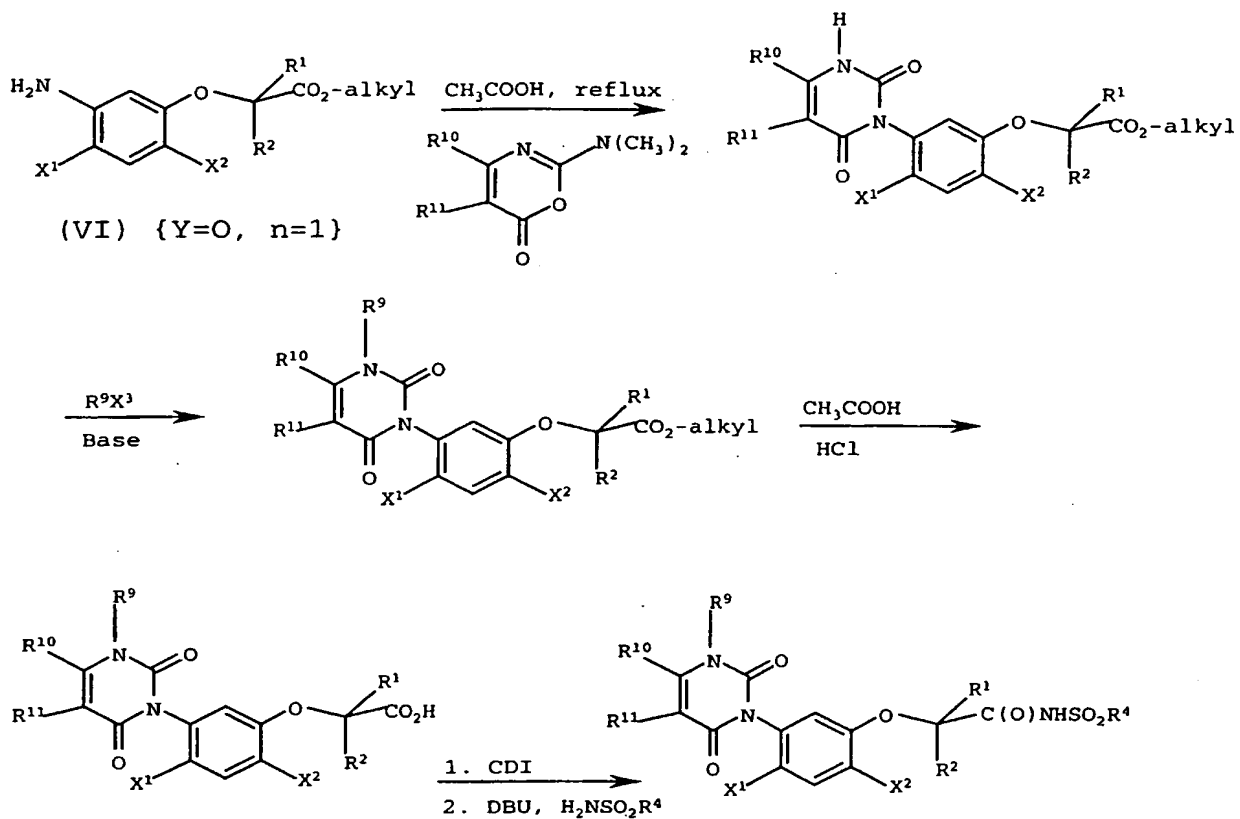
wherein X^1 , X^2 , R^1 and R^2 are as defined above by routine methods in the
 synthesis of heterocycles, or in analogy to the methods described in the schemes below.
 Compounds of the formulas VIa or VIb are known e.g. from WO 01/79182, EP-A 240
 659, EP-A 300 387 and DE-A 39 04 082.

5 Exemplary synthesis methods for the compounds of formula I are shown in
schemes 3 to 7 below for particular Y, n and Q values. In the following schemes X^3 is
halogen, preferably chlorine, bromine or iodine. DBU means diazabicyloundecene.
CDI is carbonyldimidazole. The methods and conditions for achieving the reactions
described in the following schemes are in general known from the literature cited
10 above and from Böger et al. Peroxidizing Herbicides, Springer Verlag 1999.

5 Scheme 3: Y is O, n = 1, Q = Q1

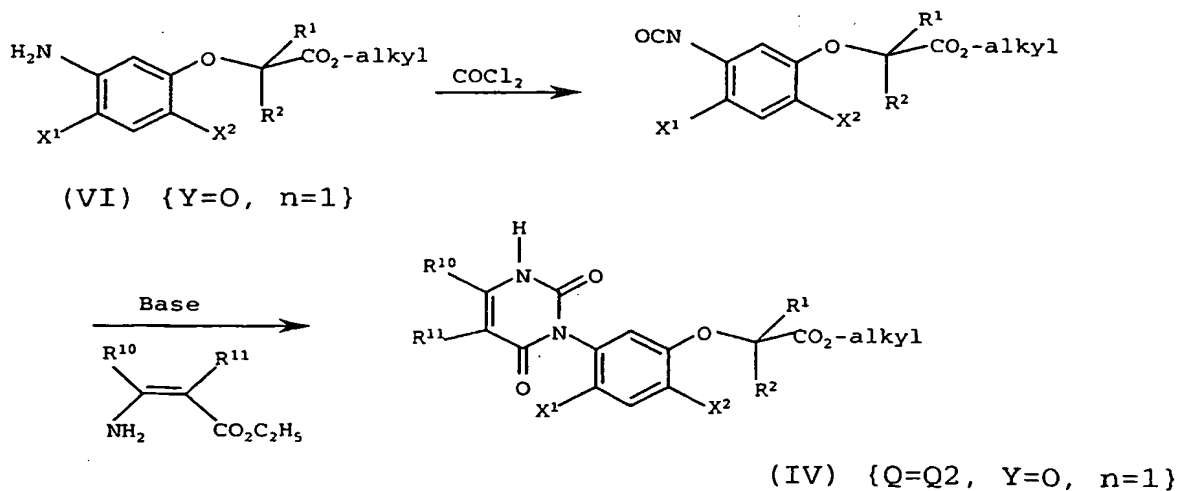


5 Scheme 4: Y is O, n = 1, Q = Q2

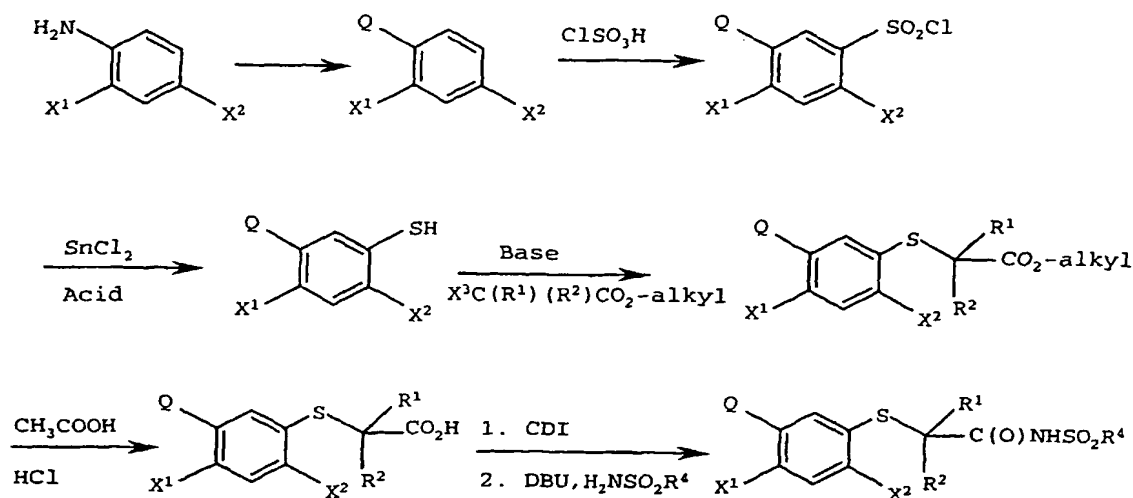


Alternatively, the intermediate compound IV $\{Q = Q2, Y=O, n=1\}$ may be prepared from compound VI $\{Y=O, n=1\}$ in the following manner (scheme 5):

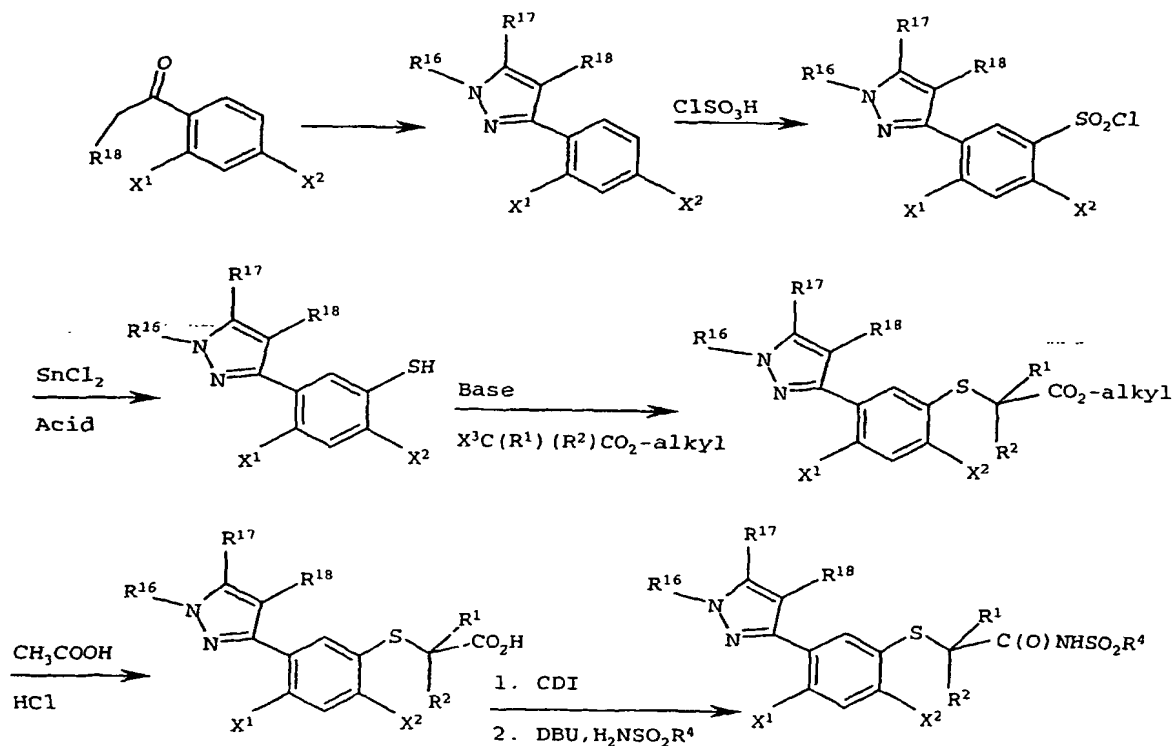
10



5 Scheme 6: Y = S, n = 1, Q = Q1 to Q4, Q7, Q8



Scheme 7: Y = S, n = 1, Q = Q5



0

In scheme 7, the radical R^{18} in the starting material is usually different from halogen. A halogen atom as radical R^{18} will be usually introduced during the reaction sequence.

5 The compounds I and their agriculturally utilizable salts are suitable - both as
isomer mixtures and in the form of the pure isomers - as herbicides. The compounds I
or herbicidal compositions comprising their salts control vegetation very well on non-
crop areas, particularly at high application rates. In crops such as wheat, rice, corn,
soybeans and cotton, they act against weeds and weed grasses without noticeably
10 damaging the crop plants. This effect occurs especially at low application rates.

 Weeds and weed grasses species are exemplified without limitation by the
following: velvetleaf (*Abutilon theophrasti*), pigweed (*Amaranthus* spp.), mugwort
(*Artemisia* spp.), milkweed (*Asclepias* spp.), buttonweed (*Borreria* spp.), oilseed rape,
canola, indian mustard, etc. (*Brassica* spp.), canada thistle (*Cirsium arvense*),
15 commelina (*Commelina* spp.), field bindweed (*Convolvulus arvensis*), filaree (*Erodium*
spp.), sunflower (*Helianthus* spp.), morning glory (*Ipomoea* spp.), kochia (*Kochia*
scoparia), mallow (*Malva* spp.), wild buckwheat, smartweed, etc. (*Polygonum* spp.),
purslane (*Portulaca* spp.), kudzu (*Pueraria* spp.), russian thistle (*Salsola* spp.), sida
(*Sida* spp.), wild mustard (*Sinapis arvensis*) and cocklebur (*Xanthium* spp.).

20 Narrowleaf species are exemplified without limitation by the following: wild
oat (*Avena fatua*), carpetgrass (*Axonopus* spp.), brachiaria (*Brachiaria* spp.), downy
brome (*Bromus tectorum*), bermuda grass (*Cynodon dactylon*), yellow nutsedge
(*Cyperus esculentus*), purple nutsedge (*C. rotundus*), crabgrass (*Digitaria* spp.),
barnyard grass (*Echinochloa crus-galli*), goosegrass (*Eleusine indica*), quackgrass
25 (*Elymus repens*), lalang (*Imperata cylindrica*), annual ryegrass (*Lolium multiflorum*),
perennial ryegrass (*Lolium perenne*), rice (*Oryza sativa*), ottochloa (*Ottochloa nodosa*),
guineagrass (*Panicum maximum*), dallisgrass (*Paspalum dilatatum*), bahiagrass
(*Paspalum notatum*), canarygrass (*Phalaris* spp.), reed (*Phragmites* spp.), foxtail
(*Setaria* spp.), johnsongrass (*Sorghum halepense*), wheat (*Triticum aestivum*), cattail
30 (*Typha* spp.), and corn (*Zea mays*).

 Other harmful plant species are exemplified without limitation by the following:
horsetail (*Equisetum* spp.), bracken (*Pteridium aquilinum*), blackberry (*Rubus* spp.) and
gorse (*Ulex europaeus*).

 Depending on the particular application method, the compounds I or
35 compositions comprising them can additionally be employed for controlling undesired
plants in a further number of crop plants. The following crops, for example, are
suitable:

5 Allium cepa, Ananas comosus, Arachis hypogaea, Asparagus officinalis, Beta
vulgaris spec. altissima, Beta vulgaris spec. rapa, Brassica napus var. napus, Brassica
napus var. napobrassica, Brassica rapa var. silvestris, Camellia sinensis, Carthamus
tinctorius, Carya illinoensis, Citrus limon, Citrus sinensis, Coffea arabica (Coffea
canephora, Coffea liberica), Cucumis sativus, Cynodon dactylon, Daucus carota, Elaeis
10 guineensis, Fragaria vesca, Glycine max, Gossypium hirsutum, (Gossypium arboreum,
Gossypium herbaceum, Gossypium vitifolium), Helianthus annuus, Hevea brasiliensis,
Hordeum vulgare, Humulus lupulus, Ipomoea batatas, Juglans regia, Lens culinaris,
Linum usitatissimum, Lycopersicon lycopersicum, Malus spec., Manihot esculenta,
Medicago sativa, Musa spec., Nicotiana tabacum (N.rustica), Olea europaea, Oryza
15 sativa, Phaseolus lunatus, Phaseolus vulgaris, Picea abies, Pinus spec., Pisum sativum,
Prunus avium, Prunus persica, Pyrus communis, Ribes sylvestre, Ricinus communis,
Saccharum officinarum, Secale cereale, Solanum tuberosum, Sorghum bicolor (S.
vulgare), Theobroma cacao, Trifolium pratense, Triticum aestivum, Triticum durum,
Vicia faba, Vitis vinifera, Zea mays.

20 Moreover, the compounds I can also be used in crops which have been made
tolerant to the action of herbicides by means of breeding, including genetic engineering
methods.

 In addition, the compounds of the general formula I according to the invention
and their agriculturally utilizable salts are also suitable for the desiccation and/or
25 defoliation of plants.

 As desiccants, they are suitable, in particular, for drying out the above-ground
parts of crop plants such as potatoes, rapeseed, sunflower and soybeans. Completely
mechanical harvesting of these important crop plants is made possible in this way.

 Also of economic interest is the time-controlled fall of fruit or the reduction in
30 their firmness of attachment to the plant, for example in the case of citrus fruits, olives
and other types of pomes, drupes and indehiscent fruit, since by this means the
harvesting of this fruit is facilitated. The fall is based on the formation of abscission
tissue between the fruit, leaf and sprout part of the plants and is promoted by the
compounds of the general formula I according to the invention and their salts. The use
35 of the compounds of the general formula I according to the invention and their
agriculturally utilizable salts thus allows controlled fall of fruits and controlled
defoliation of the crop plants such as cotton and thus makes possible facilitation of

5 harvesting in crop plants of this type. Controlled defoliation is particularly also of interest in the case of useful plants such as cotton. By means of the shortening of the time interval in which the individual cotton plants become ripe, increased quality of the harvested fiber material is achieved. Control of undesirable vegetation is in general achieved by contacting the plants, their habitat or seeds with a herbicidally effective
10 amount of at least one compound I or its salt.

As used throughout, the term "contacting" is used to mean at least an instance of exposure of at least one plant cell or planting area with a compound or composition of formula I by applying the herbicide using any method known in the art. As such, "contacting" includes both direct contact (applying the composition directly on the
15 plant) and indirect contact (applying the composition to the planting area whereupon the plant incorporates the active ingredients). This contact can take place before the target plant emerges from the soil ("pre-emergence" or "PRE") or after the target plant emerges from the soil ("post-emergence" or "POST"). The compounds of the present invention can be applied in a number of ways, for example, they can be applied,
20 formulated or unformulated, directly to the foliage of the target plant or to the planting area or they can be sprayed on, broadcast, dusted on or applied as a cream or paste formulation or they can be applied as slow release granules (ie by injecting, shanking, chiseling or working into the soil).

-In general, "herbicidally effective amount" means the amount needed to achieve
25 an observable herbicidal effect on plant growth, including the effects of plant necrosis, plant death, growth inhibition, reproduction inhibition, inhibition of proliferation, and removal, destruction, or otherwise diminishing the occurrence and activity of a plant. Desirably, the herbicidal effects result in greater than 40% control, more desirably greater than 50% control, even more desirably more than 60% control, even more
30 desirably more than 70% control, even more desirably more than 80% control, and even more desirably more than 90% control. Such control may not be immediately apparent, but may be present after 1 days to 15 days after treatment. One of ordinary skill in the art will recognize that the potency and, therefore, an "herbicidally effective amount," can vary for the various compounds/compositions used in the invention.

35 The compounds of the formula I according to the invention or the herbicidal compositions comprising them can be applied by spraying, atomizing, dusting, broadcasting, watering or treatment of the seed or mixing with the seed in the form of

5 directly sprayable aqueous solutions, powders, suspensions, also high-percentage aqueous, oily or other suspensions or dispersions, emulsions, oil dispersions, pastes, dusting compositions, broadcasting compositions or granules. The use forms depend on the intended use; in each case they should if possible guarantee the finest dispersion of the active compounds according to the invention. The compositions according to the invention contain a herbicidally active amount of at least one compound of the general formula I or an agriculturally utilizable salt of I and the auxiliaries customary for the formulation of crop protection compositions.

Typical formulations contain the compound I of the present invention in a range from 0.1 parts to 100 parts by weight and may also contain a carrier. The carrier may be any natural or synthetic organic or inorganic ingredient that facilitates dispersion of the composition or compound and contact with the plant. The carrier may be solid (e.g. clays, synthetic silicates, silica, resins, waxes, kaolin, bentonite, dolomite, calcium carbonate, talc, powdered magnesia, Fuller's earth, gypsum, diatomaceous earth, China clay, and combinations thereof); liquid (e.g. water, aqueous solutions, N-methylpyrrolidone, kerosene, cyclohexanone, methylethyl ketone, acetonitrile, methanol, ethanol, isopropyl alcohol, acetone, butyl cellosolved, 2-ethyl-1hexanol, cyclohexanone, methyl cellulose, polyvinyl alcohol, sodium lignin sulfonates, polymeric alkyl naphthalene sulfonates, sodium naphthalene sulfonate, polymethylene bisnaphthalenesulfonate, sodium N-methyl-N-(long-chain acid) laureates, hydrocarbons and other water-immiscible ethers, esters and ketones, and combinations thereof); or a combination of solid and liquid carriers.

Suitable inert additives are essentially: mineral oil fractions of medium to high boiling point, such as kerosene or diesel oil, furthermore coal tar oils and oils of vegetable or animal origin, aliphatic, cyclic and aromatic hydrocarbons, e.g. paraffin, tetrahydronaphthalene, alkylated naphthalenes or their derivatives, alkylated benzenes or their derivatives, alcohols such as methanol, ethanol, propanol, butanol, cyclohexanol, ketones such as cyclohexanone or strongly polar solvents, e.g. amines such as N-methylpyrrolidone or water.

Aqueous application forms can be prepared from emulsion concentrates, suspensions, pastes, wettable powders or water-dispersible granules by addition of water. For the preparation of emulsions, pastes or oil dispersions, the compounds I can be homogenized as such or dissolved in an oil or solvent, by means of wetting agents,

5 adhesives, dispersants or emulsifiers. However, concentrates consisting of active substance, wetting agent, adhesive, dispersant or emulsifier and possibly solvent or oil can also be prepared, which are suitable for dilution with water.

Formulations useful in the present invention may also contain one or more surfactants to increase the biological effectiveness of the active ingredient. Suitable
10 surface active ingredients include surfactants, emulsifying agents, and wetting agents. A wide range of surfactants is available and can be selected readily by those skilled in the art from "The Handbook of Industrial Surfactants," 2nd Edition, Gower (1997), which is incorporated herein by reference in its entirety for all purposes. There is no restriction on the type or chemical class of surfactant that can be used. Nonionic,
15 anionic, cationic and amphoteric types, or combinations of more than one of these types, are all useful in particular situations.

Among nonionic surfactants, exemplary classes include polyoxyethylene alkyl, alkyne, alkynyl or alkylaryl ethers, such as polyoxyethylene primary or secondary alcohols, alkylphenols or acetylenic diols; polyoxyethylene alkyl or alkyne esters, such
20 as ethoxylated fatty acids; sorbitan alkylesters, whether ethoxylated or not; glyceryl alkylesters; sucrose esters; and alkyl polyglycosides. Exemplary anionic surfactant classes include fatty acids, sulfates, sulfonates, and phosphate mono- and diesters of alcohols, alkylphenols, polyoxyethylene alcohols and polyoxyethylene alkylphenols, and carboxylates of polyoxyethylene alcohols and polyoxyethylene alkylphenols.
25 These can be used in their acid form but are more typically used as salts, for example sodium, potassium or ammonium salts.

Cationic surfactants classes include polyoxyethylene tertiary alkylamines or alkenylamines, such as ethoxylated fatty amines, quaternary ammonium surfactants and polyoxyethylene alkyletheramines. Representative specific examples of such cationic
30 surfactants include polyoxyethylene (5) cocoamine, polyoxyethylene (15) tallowamine, distearyldimethylammonium chloride, N-dodecylpyridine chloride and polyoxypropylene (8) ethoxytrimethylammonium chloride. Many cationic quaternary ammonium surfactants of diverse structures are known in the art to be useful in combination with herbicides and can be used in compositions contemplated herein.

35 Suitable emulsifying agents and wetting agents include, but are not limited to, ionic and nonionic types such as polyacrylic acid salts, lignosulphonic acid salts, phenolsulphonic or naphthalenesulphonic acids, products of polycondensation of

5 ethylene oxide with fatty alcohols, fatty acids or fatty amines, substituted phenols (especially alkylphenols or arylphenols), sulphonosuccinic acid ester salts, taurine derivatives (especially alkyl taurates), phosphoric esters of alcohols or products of polycondensation of ethylene oxide with phenols, esters of fatty acids with polyhydric alcohols, and derivatives having sulphate, sulphonate and phosphate groups, of the
10 compounds above.

The composition of this invention may be made up as granules comprising 0.5 to 40%, preferably 2 to 30% by weight of the active compound of this invention as active ingredient; 1 to 20%, preferably 2 to 10% by weight of the surfactant; and 40 to 98.5%, preferably 20 to 96% by weight of solid carrier. Formulated into a dust, the
15 composition may include 0.5 to 40%, preferably 1 to 35% by weight of the active ingredient; and 99.5 to 60%, preferably 99 to 65% by weight of finely divided solid carrier.

The composition of this invention may also be formulated into a paste comprising 0.1 to 20%, preferably 1 to 10% by weight of the active ingredient, 1 to 20%, preferably 2 to 10% by weight of surfactant; and 60 to 98.9%, preferably 80 to 97% by weight of paste base. In a wettable powder formulation, the composition typically includes 5 to 95%, preferably 10 to 50% by weight of the new compounds of this invention as active ingredient; 1 to 20%, preferably 5 to 10% by weight of surfactant; and 4 to 44%, preferably 40 to 85% by weight of solid carrier, the solid
20 carrier being preferably ammonium sulfate.

The aqueous dispersions or emulsions may be prepared by dissolving the active ingredient in an organic solvent optionally containing wetting, dispersing or emulsifying agent(s) and then adding the mixture to water which may also contain wetting, dispersing or emulsifying agents(s). Suitable organic solvents are kerosene, cyclohexanone, methylethyl ketone, acetone, methanol, acetonitrile, and the like. The
30 compositions may also be in the form of liquid preparations for use as dips or sprays which are generally aqueous dispersions or emulsions containing the active ingredient in the presence of one or more of wetting agent(s), dispersing agent(s), emulsifying agent(s) or suspending agent(s).

35 Typical liquid solutions include the active ingredient, a carrier, and optionally, a surface active agent. The dilute solutions of the present compositions generally contain about 0.1 to about 50 parts active ingredient, about 0.25 to about 50 parts carrier, and

5 about 0 to about 94 parts surface active agent, all parts being by weight based on the total weight of the composition. Similarly, the concentrated compositions typically include about 40 to about 95 parts active ingredient, about 5 to about 25 parts carrier, and about 0 to about 20 parts surface active agent.

10 Emulsifications are usually solutions of herbicides in water-immiscible or partially water-immiscible solvents as the carrier together with at least one surface active agent. Suitable solvents for the active ingredients of this invention include, but are not limited to, hydrocarbons and water-immiscible ethers, esters or ketones. The emulsification compositions generally contain from 5 to 95%, preferably 20 to 70% by weight of the active compound of this invention as active ingredient; 1 to 40%,
15 preferably 5 to 20% by weight of surfactant; and 4 to 94%, preferably 10 to 75% by weight of liquid carrier.

Powders, broadcasting compositions and dusting compositions can be prepared by mixing or joint grinding of the active substances with a solid carrier.

20 Granules, e.g. coated, impregnated and homogeneous granules, can be prepared by binding the active compounds to solid carriers. Solid carriers are mineral earths such as silicic acids, silica gels, silicates, talc, kaolin, limestone, lime, chalk, bole, loess, clay, dolomite, diatomaceous earths, calcium sulfate and magnesium sulfate, magnesium oxide, ground synthetic materials, fertilizers, such as ammonium sulfate, ammonium phosphate, ammonium nitrate, ureas and vegetable products such as grain
25 flour, tree bark meal, wood meal and nutshell meal, cellulose powder or other solid carriers.

The concentrations of the active compounds I in the ready-to-use preparations can be varied within wide ranges. The formulations in general contain 0.001 to 98% by weight, preferably 0.01 to 95% by weight, of at least one active compound. The active
30 compounds are employed here in a purity of from 90% to 100%, preferably 95% to 100% (according to NMR spectrum).

The compounds I according to the invention can be formulated, for example, as follows:

I 20 parts by weight of a compound I are dissolved in a mixture which
35 consists of 80 parts by weight of alkylated benzene, 10 parts by weight of the addition product of 8 to 10 mol of ethylene oxide to 1 mol of oleic acid N-monoethanolamide, 5 parts by weight of calcium salt of dodecylbenzenesulfonic acid and 5 parts by weight of

5 the addition product of 40 mol of ethylene oxide to 1 mol of castor oil. By pouring out and finely dispersing the solution in 100 000 parts by weight of water, an aqueous dispersion is obtained which contains 0.02% by weight of the active compound.

10 II 20 parts by weight of a compound I are dissolved in a mixture which consists of 40 parts by weight of cyclohexanone, 30 parts by weight of isobutanol, 20 parts by weight of the addition product of 7 mol of ethylene oxide to 1 mol of isooctylphenol and 10 parts by weight of the addition product of 40 mol of ethylene oxide to 1 mol of castor oil. By pouring the solution into 100 000 parts by weight of water and finely dispersing it, an aqueous dispersion is obtained which contains 0.02% by weight of the active compound.

15 III 20 parts by weight of a compound I are dissolved in a mixture which consists of 25 parts by weight of cyclohexanone, 65 parts by weight of a mineral oil fraction of boiling point 210 to 280°C and 10 parts by weight of the addition product of 40 mol of ethylene oxide to 1 mol of castor oil. By pouring the solution into 100 000 parts by weight of water and finely dispersing it, an aqueous dispersion is obtained which contains 0.02% by weight of the active compound.

20 IV 20 parts by weight of a compound I are well mixed with 3 parts by weight of the sodium salt of diisobutyl-naphthalenesulfonic acid, 17 parts by weight of the sodium salt of a lignosulfonic acid from a sulfite waste liquor and 60 parts by weight of powdered silica gel and ground in a hammer mill. By finely dispersing the mixture in 20 000 parts by weight of water, a spray liquor is obtained which contains 0.1% by weight of the active compound.

V 3 parts by weight of a compound I are mixed with 97 parts by weight of finely divided kaolin. A dusting composition which contains 3% by weight of the active compound is obtained in this way.

30 VI 20 parts by weight of a compound I are intimately mixed with 2 parts by weight of calcium salt of dodecylbenzenesulfonic acid, 8 parts by weight of fatty alcohol polyglycol ether, 2 parts by weight of sodium salt of a phenol/urea/formaldehyde condensate and 68 parts by weight of a paraffinic mineral oil. A stable oily dispersion is obtained.

35 VII 1 part by weight of a compound I is dissolved in a mixture which consists of 70 parts by weight of cyclohexanone, 20 parts by weight of ethoxylated

5 isooctylphenol and 10 parts by weight of ethoxylated castor oil. A stable emulsion concentrate is obtained.

VIII 1 part by weight of a compound I is dissolved in a mixture which consists of 80 parts by weight of cyclohexanone and 20 parts by weight of Wettol® EM 31 (nonionic emulsifier based on ethoxylated castor oil). A stable emulsion concentrate
10 is obtained.

The herbicidal compositions or the active compounds which contain the compound of the general formula I and/or their salts can be applied preemergence, postemergence or together with the seed of a crop plant. There is also the possibility of applying the herbicidal compositions or active compounds by applying seed of a crop
15 plant pretreated with the herbicidal compositions or active compounds. If the active compounds are less tolerable to certain crop plants, application techniques can be used in which the herbicidal compositions are sprayed with the aid of spray equipment such that the leaves of the sensitive crop plants are not affected if possible, while the active compounds reach the leaves of undesired plants growing thereunder or the uncovered
20 soil surface (post-directed, lay-by).

Depending on the aim of control, time of year, target plants and stage of growth, the application rates of active compound are 0.001 to 3.0, preferably 0.01 to 1.0, kg/ha of active substance (a.s.), more preferably 1 g to about 500 g per hectare; desirably
25 from about 1 to about 125 g per hectare; more desirably from about 5 g to about 75 g per hectare as the active ingredient.

Compositions of this invention may also contain other active ingredients, for example fertilizers such as ammonium nitrate, urea, potash, and superphosphate; phytotoxicants and plant growth regulators; safeners; and pesticides. These additional ingredients may be used sequentially or in combination with the above-described
30 compositions. For example, the plant(s) may be sprayed with a composition of this invention either before or after being treated with other active ingredients. Such sequential applications may be performed by applying the combination of active ingredients individually within a one day period or less, such as separate applications of the individual herbicides within less than 1 hour, less than 5 hours, less than 10 hours,
35 less than 14 hours, or less than 17 hours.

Other optional components may be admixed with the present compositions to facilitate the application and/or effectiveness of the active ingredient. To this end,

5 optional components that may be added include antifoaming agents including silicone based antifoaming agents; thickening agents such as fumed silica; antimicrobial agents; antioxidants; buffers; dyes; perfumes; stabilizing agents; and antifreezing agents. Exemplary antifreezing agents include but are not limited to, glycols such as propylene glycol and ethylene glycol, N-methylpyrrolidone, cyclohexanone, and alcohols such as
10 ethanol and methanol.

To widen the spectrum of action and to achieve synergistic effects, the compounds of the general formula I according to the invention can be mixed and applied together with numerous representatives of other herbicidal or growth-regulating active compound groups. For example, suitable mixture components are 1,2,4-
15 thiadiazoles, 1,3,4-thiadiazoles, amides, aminophosphoric acids and their derivatives, aminotriazoles, anilides, (het)aryloxyalkanoic acids and their derivatives, benzoic acid and its derivatives, benzothiadiazinones, 2-aryl-1,3-cyclohexanediones, hetaryl aryl ketones, benzylisoxazolidinones, meta-CF₃-phenyl derivatives, carbamates, quinolinecarboxylic acid and its derivatives, chloroacetanilides, cyclohexane-1,3-dione
20 derivatives, diazines, dichloropropionic acid and its derivatives, dihydrobenzofurans, dihydrofuran-3-ones, dinitroanilines, dinitrophenols, diphenyl ethers, dipyridyls, halocarboxylic acids and their derivatives, ureas, 3-phenyluracils, imidazoles, imidazolinones, N-phenyl-3,4,5,6-tetrahydrophthalimides, oxadiazoles, oxiranes, phenols, aryloxy- or hetaryloxyphenoxypionic acid esters, phenylacetic acid and its
25 derivatives, phenylpropionic acid and its derivatives, pyrazoles, phenylpyrazoles, pyridazines, pyridinecarboxylic acid and its derivatives, pyrimidyl ethers, sulfonamides, sulfonylureas, triazines, triazinones, triazolinones, triazolecarboxamides and uracils.

Before the present compounds, compositions, and methods are disclosed and
30 described, it is to be understood that this invention is not limited to specific synthetic methods of making that may of course vary. It is also to be understood that the terminology used herein is for the purpose of describing particular embodiments only and is not intended to be limiting.

35 Experimental:

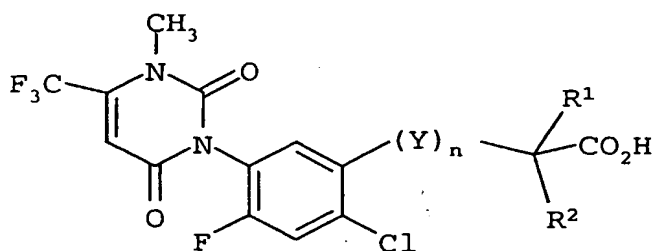
The following examples are put forth so as to provide those of ordinary skill in the art with a complete disclosure and description of how the compounds,

compositions, and methods claimed herein are made and evaluated, and are intended to be purely exemplary of the invention and are not intended to limit the scope of what the inventors regard as their invention. Efforts have been made to ensure accuracy with respect to numbers (e.g., amounts, temperature, etc.) but some errors and deviations should be accounted for. Unless indicated otherwise, percent is percent by weight given the component and the total weight of the composition, temperature is in °C or is at ambient temperature, and pressure is at or near atmospheric.

Preparation of Chemical Compounds:

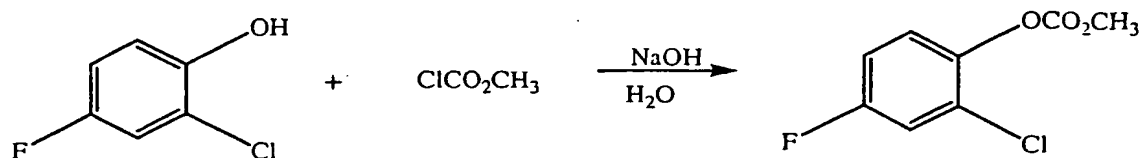
The compounds of the present invention were prepared using the following methodology:

A Preparation of intermediate compounds AR to AX



Compound	Y	n	R ¹	R ²	mp (°C)
AR	O	1	H	CH ₃	foam
AS	O	1	CH ₃	CH ₃	foam
AT	O	1	H	H	55-60
AU	S	1	CH ₃	H	colorless oil
AV	NH	1	H	H	187-192
AW	none	0	H	H	186-186
AX	none	0	CH ₃	H	173-175

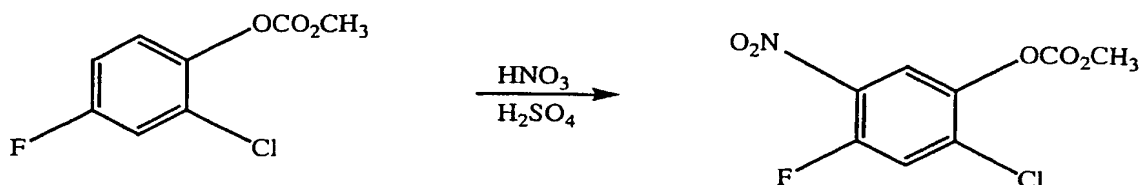
1. 2-Chloro-4-fluorophenol, O-methyl carbonate



A mixture of sodium hydroxide (14.7 g, 0.368 mol) and water is cooled to 10 °C and treated with 2-chloro-4-fluorophenol (45.0 g, 0.307 mol). The resultant mixture is

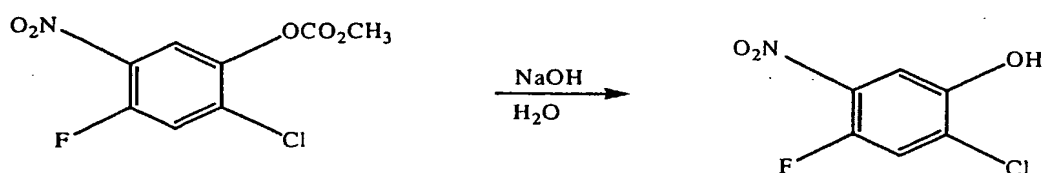
5 stirred 15 min at 10 °C and treated dropwise with methyl chloroformate (37.7 g, 0.399 mol) such that $T < 10\text{ }^{\circ}\text{C}$. The resultant mixture is stirred two hr at 10 °C and two hr at room temperature. Filtration with water wash affords the title compound (57.7 g, 92 %) with consistent NMR spectral data.

10 2. 2-Chloro-4-fluoro-5-nitrophenol, O-methyl carbonate



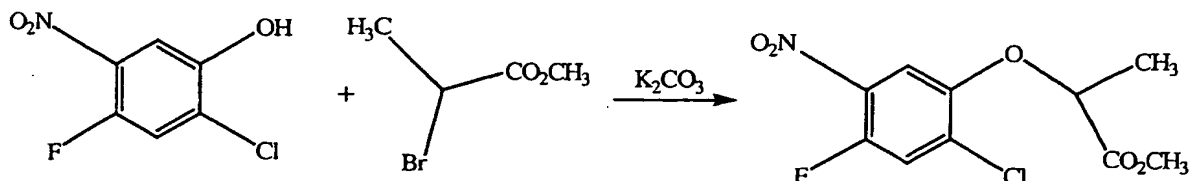
A mixture of 2-chloro-4-fluorophenol, O-methyl carbonate (57.0 g, 0.279 mol) and conc sulfuric acid (75 ml) is cooled and treated dropwise with a mixture of 90% nitric acid (19.3 g, 0.306 mol) and conc sulfuric acid (15 ml). The resultant mixture is stirred three hr at room temperature and poured into ice water. The suspension is filtered with water wash to afford the title compound (70.5 g, 100%) with consistent NMR spectral data.

20 3. 2-Chloro-5-fluoro-nitrophenol



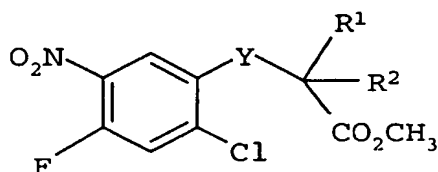
A mixture of 2-chloro-4-fluoro-5-nitrophenol, O-methyl carbonate (70.4 g, 0.282 mol), water and sodium hydroxide (13.5 g, 0.338 mol) is stirred three hr at reflux, cooled and diluted with additional water. The mixture is filtered through celite and the filtrate acidified to pH-6. The suspension is filtered with water wash to afford the title compound (54.8 g, 64.5%) with consistent NMR spectral data.

30 4. Intermediate Compound AA:



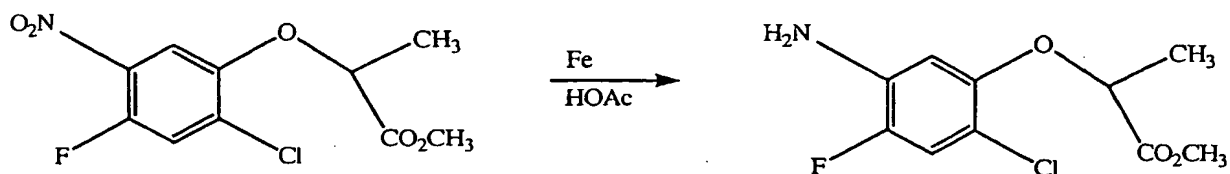
To a mixture of the phenol (10.0 g, .0522 mol), potassium carbonate (7.60 g, 0.0548 mol) and dimethylformamide (60 ml) is added dropwise methyl-2-bromopropionate (9.20 g, 0.0548 mol) at ambient temperature. The mixture is stirred two hr at 50 °C, cooled and diluted with ethyl acetate and water. The organic layer is saved and the aqueous layer extracted twice with ethyl acetate. The combined organic layers are washed with water and brine, dried over sodium carbonate and concentrated *in vacuo* to afford the title compound as an off-white solid (14.2 g, 98.1%) with consistent NMR spectral data.

Using the same procedure, the appropriate phenol, thiophenol or amine and the appropriate alkylating agent the following products are obtained.



Compound	Y	R ¹	R ²	mp (°C)
AB	O	CH ₃	CH ₃	Not observed
AC	O	H	H	84-89
AD	S	CH ₃	H	colorless syrup
AE	S	H	H	colorless oil
AF	NH	H	H	78-82

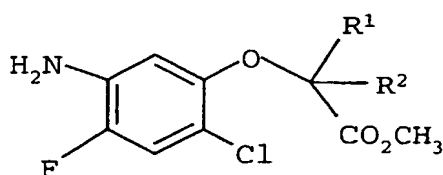
5. Intermediate Compound 1AG



A mixture of Compound AA (14.0 g, 0.0543 mol) and acetic acid (175 ml) is heated to 60 °C and treated with iron (14.1 g, 0.252mol) in portions. The resultant mixture is

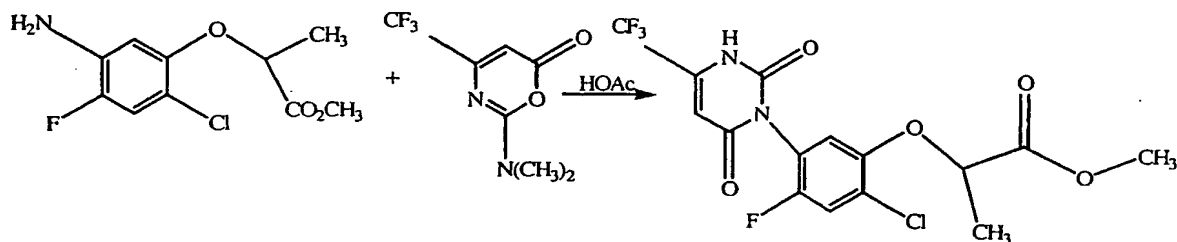
5 stirred three hr at 70 °C, cooled and diluted with water and ethyl acetate. The organic layer is saved and the aqueous layer is extracted with ethyl acetate. The combined organic layers are washed with water, aq sodium carbonate (1 M) and brine, dried over sodium sulfate and concentrated *in vacuo* to afford the title compound as a light brown oil (12.3 g, 98.6%) with consistent NMR spectral data.

10 Using the same procedure and the appropriate nitrobenzene, the following products are obtained.



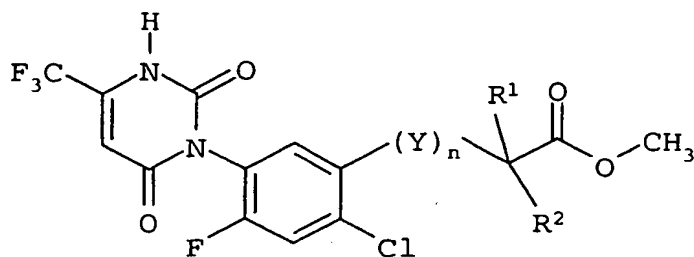
Compound	R ¹	R ²	mp (°C)
AH	H	H	oil
AI	CH ₃	CH ₃	88-90

6. Intermediate Compound AJ



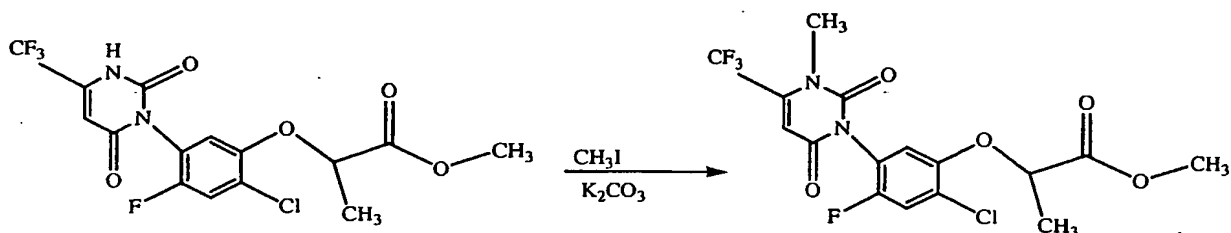
20 A mixture of Compound AG (20.0 g, 0.0475 mol), acetic acid (150 ml) and hydrochloric acid (70 ml) is treated with stannous chloride dihydrate (53.6 g, 0.237 mol). The mixture is stirred 1.5 hr at 80 °C, cooled and diluted with water. The mixture is extracted twice with ether. The combined organic extracts are washed with water and brine, dried and concentrated *in vacuo* to afford the title compound as an off-white foam (11.1, g, 66%) with consistent NMR and mass spectral data.

30 Using the same procedure and the appropriate aniline, the following products are obtained.



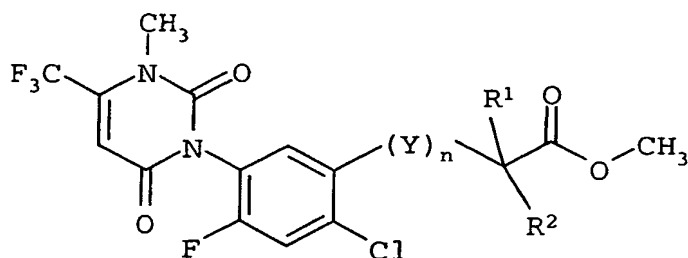
Compound	Y	n	R ¹	R ²	mp (°C)
AK	O	1	H	H	158-162
AL	O	1	CH ₃	CH ₃	
AM	none	0	CH ₃	H	

7. Intermediate Compound AN:



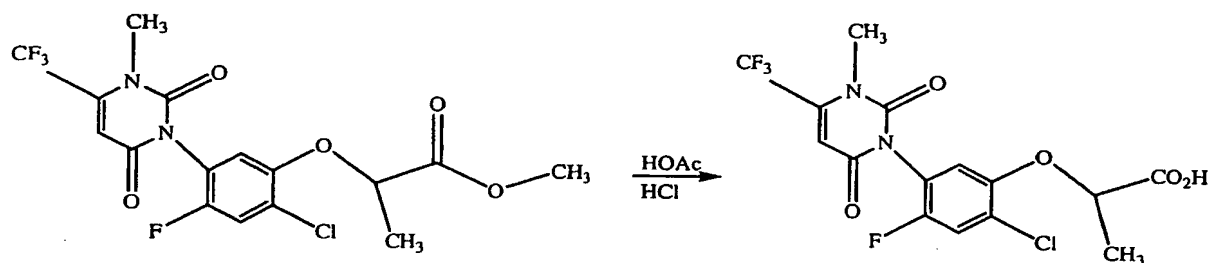
A mixture of Compound AJ (6.67 g, 0.0162 mol), dimethylformamide (50 ml) and potassium carbonate (2.36 g, 0.0170 mol) is stirred for 30 min at room temperature and treated with iodomethane (2.53 g, 0.0179 mol). The mixture is stirred for four hr and treated with additional potassium carbonate (0.50 g) and iodomethane (0.50 g). The resultant mixture is stirred overnight at room temperatures and partitioned between ice water and ether. The organic layer is washed with water and brine, dried over sodium sulfate and concentrated *in vacuo* to a glassy solid, which is chromatographed on silica gel (hexanes:ethyl acetate eluent) to afford the title compound as an oil (5.50 g, 79.7%) with consistent NMR and mass spectral data.

Using an identical procedure and the appropriate uracil substituted phenyl, the following products are obtained.



Compound	Y	n	R ¹	R ²	mp (°C)
AO	O	1	H	H	153-156
AP	O	1	CH ₃	CH ₃	107-111
AQ	none	0	CH ₃	H	

8. Intermediate Compound AR:

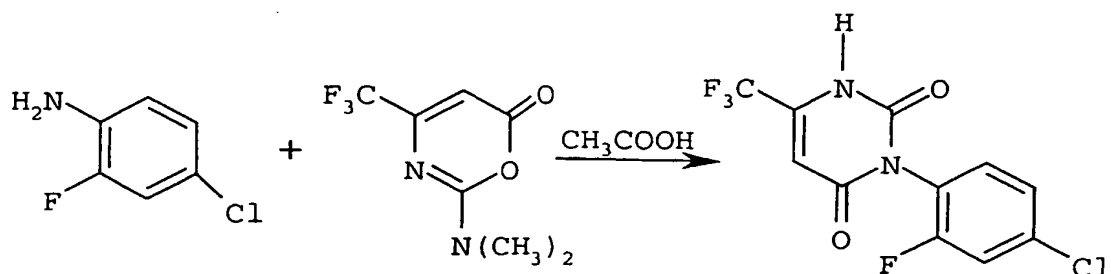


To a mixture of Compound AN (4.50 g, 0.0106 mol) and acetic acid (25 ml) is added a mixture of hydrochloric acid (25 ml) and water (25 ml). The resultant mixture is stirred four hr at reflux, cooled to room temperature and partitioned between ethyl acetate and water. The organic layer is saved and the aqueous layer extracted with ethyl acetate. The combined organic layers are washed three times with water and then brine, dried over sodium sulfate and concentrated in vacuo to afford the title compound as a foam (4.32 g, 99.3%) with consistent NMR and mass spectral data.

Using the same procedure and the appropriate ester, the intermediate products AS to AX are obtained.

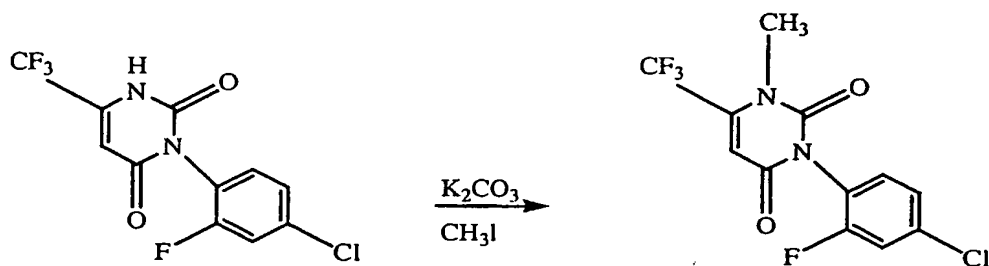
B. Preparation of intermediate compounds B

1. Intermediate Compound BA:



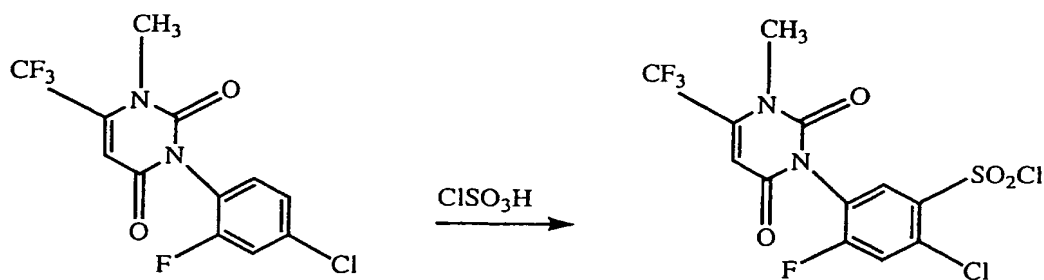
A mixture of 2-fluoro-3-chloroaniline (25.0 g, 0.172 mol), the oxazinone (35.8 g, 0.172 mol) and acetic acid (200 ml) is stirred overnight at reflux, cooled to room temperature and poured into ice water. The resulting suspension is extracted with ethyl acetate. The organic layer is washed with brine, dried and concentrated *in vacuo* to afford the title compound as a white solid (48.5 g, 91.3%) with mp = 186-187.5 °C.

2. Intermediate Compound BB:



A mixture of Compound BA (48.5 g, 0.157 mol) and dimethylformamide (200 ml) is treated with potassium carbonate (32.5g, 0.236 mol) and iodomethane (14.7 ml, 0.236 mol). The resultant mixture is stirred two hr at 50 °C, cooled to room temperature and poured into ice water. The mixture is extracted three times with ethyl acetate. The combined organic extracts are washed with water and brine, dried and concentrated *in vacuo* to a solid, which is recrystallized from ether/hexanes to afford the title compound as an off-white solid (40.5 g, 80 %) with mp 80-86 °C.

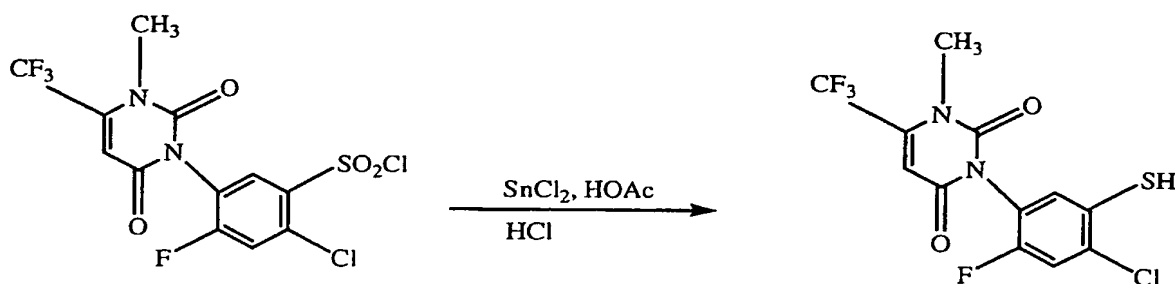
3. Intermediate Compound BC:



Chlorosulfonic acid (80 ml) is treated with Compound BB (40.5 g, 0.126 mol) and the resultant mixture is stirred 2.5 hr at 130 °C, cooled to room temperature and slowly poured onto crushed ice (~1.5 l). The suspension is filtered with water wash to afford the title compound as an off-white solid (47.3 g, 89%) with mp = 120-122 °C and consistent NMR and mass spectral data.

10

4. Intermediate Compound BD:

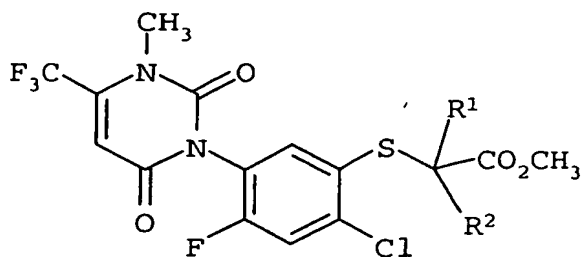


A mixture of Compound BC (20.0 g, 0.0475 mol), acetic acid (150 ml) and hydrochloric acid (70 ml) is treated with stannous chloride dihydrate (53.6 g, 0.237 mol). The mixture is stirred 1.5 hr at 80 °C, cooled and diluted with water. The mixture is extracted twice with ether. The combined organic extracts are washed with water and brine, dried and concentrated *in vacuo* to afford the title compound as an off-white foam (11.1, g, 66%) with consistent NMR and mass spectral data.

20

5. Intermediate compounds BE, BF and BG

5

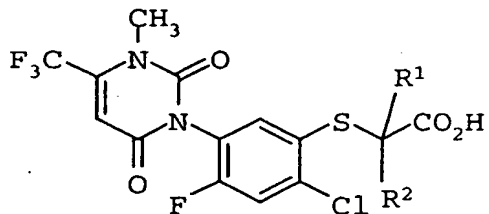


Compound	R ¹	R ²
BE	CH ₃	H
BF	CH ₃	CH ₃
BG	H	H

10

Compound BD is reacted according to step 4 of route A, whereby intermediate compound BE is obtained. Using the same procedure compounds BF and BG are obtained.

6. Intermediate compounds BH, BI and BJ



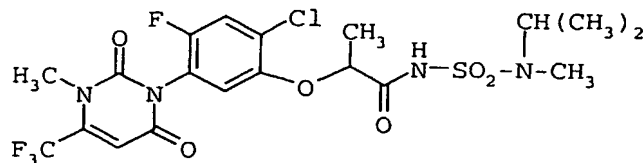
15

Compound	R ¹	R ²
BH = AU	CH ₃	H
BI	CH ₃	CH ₃
BJ	H	H

Compounds BE to BG can be hydrolyzed according to step 8 of route A, whereby intermediate compounds BH, BI and BJ are obtained.

20

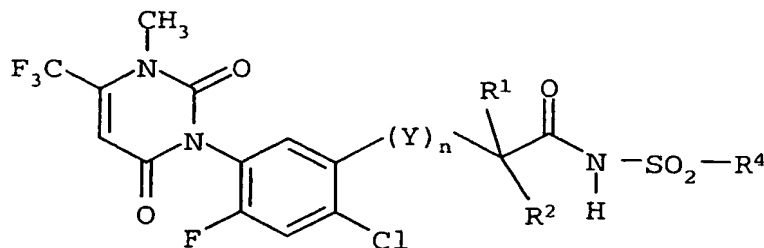
Example 1: Compound I.2a.415



A mixture of Compound 1AR (1.00 g, 0.00244 mol), N,N-carbonyldiimidazole (0.45 g, 0.00280 mol) and tetrahydrofuran (30 ml) is stirred four hr at room temperature. The sulfamide (0.43 g, 0.00280 mol) and DBU (0.43 g, 0.00280 mol) are added and the resultant mixture is stirred overnight at room temperature. The mixture is diluted with ethyl acetate and washed twice with hydrochloric acid (1.0 N). The organic layer is saved and the combined acid layers back-extracted with ethyl acetate. The combined organic layers are washed with brine, dried over sodium sulfate and concentrated *in vacuo* to afford the title compound as a foam with consistent NMR and mass spectral data.

Examples 2 to 25:

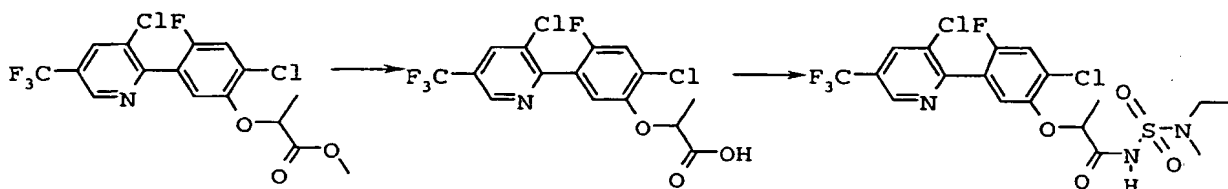
Using an essentially identical procedure and the appropriate carboxylic acid and sulfamide the following compounds are obtained.



Compound	Y	n	R ¹	R ²	R ⁴	mp (°C)
2	O	1	CH ₃	H	N(CH ₃) ₂	177-180
3	O	1	CH ₃	H	N(CH ₃)Ph	foam
4	O	1	CH ₃	CH ₃	N(CH ₃) ₂	foam
5	O	1	H	H	N(CH ₃) ₂	foam
6	O	1	H	H	N(CH ₃)Ph	foam
7	O	1	H	H	N(CH ₃)CH(CH ₃) ₂	55-62
8	O	1	H	H	CH(CH ₃) ₂	foam
9	S	1	CH ₃	H	CH(CH ₃) ₂	white foam
10	S	1	CH ₃	H	N(CH ₃) ₂	white foam

Compound	Y	n	R ¹	R ²	R ⁴	mp (°C)
11	S	1	CH ₃	H	N(CH ₃)CH(CH ₃) ₂	colorless oil
12	S	1	CH ₃	H	N(CH ₃)Ph	colorless syrup
13	S	1	H	H	CH(CH ₃) ₂	85-90
14	S	1	H	H	N(CH ₃) ₂	90-102
15	S	1	H	H	N(CH ₃)CH(CH ₃) ₂	164-173
16	S	1	H	H	N(CH ₃)Ph	85-90
17	NH	1	H	H	CH(CH ₃) ₂	236-237
18	NH	1	H	H	N(CH ₃) ₂	218-220
19	NH	1	H	H	N(CH ₃)Ph	foam
20	none	0	H	H	N(CH ₃) ₂	foam
21	none	0	H	H	N(CH ₃)CH(CH ₃) ₂	foam
22	none	0	H	H	N(CH ₃)Ph	foam
23	none	0	CH ₃	H	N(CH ₃)Ph	192-193
24	none	0	CH ₃	H	N(CH ₃)CH(CH ₃) ₂	196-198
25	none	0	CH ₃	H	N(CH ₃) ₂	191-192.5

Example 26: N-Ethyl-N-methyl sulfamic acid-[2-(2-chloro-5-(3-chloro-5-trifluoromethylpyridin-2-yl)-4-fluorophenoxy)propionyl] amide



Step 1:

1.3 g (0.0032 mol) of methyl 2-(2-chloro-5-(3-chloro-5-trifluoromethylpyridin-2-yl)-4-fluorophenoxy)-propionate (obtained according to US 5,783,522) are stirred with a solution of BBr₃ (1M, 11.5 ml) at 0°C for 4 hours. The reaction mixture is poured into ice-cold water followed by extraction with dichloromethane. The solvent is evaporated to yield 1.2 g of 2-((2-chloro-5-(3-chloro-5-trifluoromethylpyridin-2-yl)-4-fluoro)phenoxy)-propionic acid.

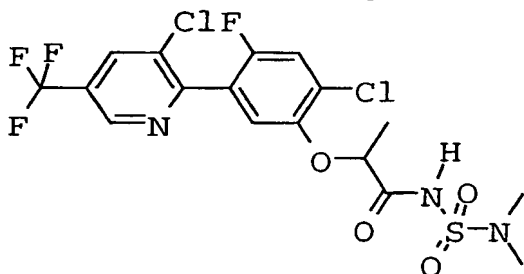
Step 2:

To 1.2 g (3.2 mmol) of 2-((2-chloro-5-(3-chloro-5-trifluoromethylpyridin-2-yl)-4-fluoro)phenoxy)-propionic acid, are added 25 ml of thionylchloride. The mixture is refluxed for 3 hours. Excessive thionylchloride is evaporated under reduced pressure to yield 1.3 g of a crude product which is used without further purification. 0.4 g (1.0

mmol) of said crude product in 20 ml of dichloromethane are stirred with 0,15 g (1.1 mmol) of N-ethyl-N-methylsulfamic acid amide, 0.24 g (2 mmol) of triethylamine and a catalytic amount of 4-dimethylaminopyridine for 2 days. The reaction mixture is washed with aqueous hydrochloric acid (10% strength by weight) and the organic phase is dried over magnesium sulfate. After concentration under reduced pressure the residue is purified by silica gel chromatography (cyclohexane/ethyl acetate = 4/1) to give 0.18 g of the title compound. Melting-point: 116-119°C.

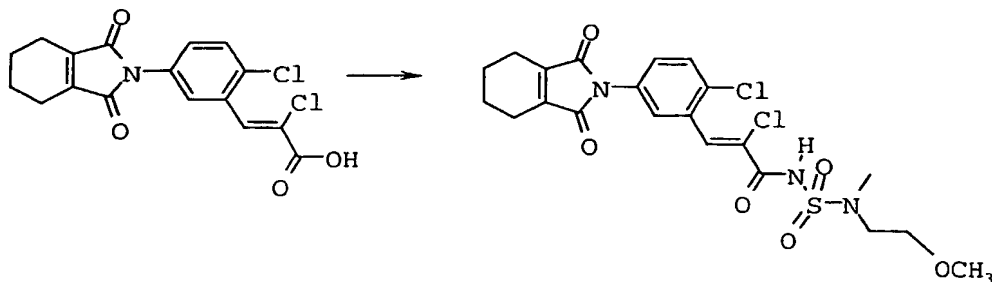
Example 27: N,N-dimethyl sulfamic acid-[2-(2-chloro-5-(3-chloro-5-trifluoromethylpyridin-2-yl)-4-fluorophenoxy)propionyl] amide

Using the method of Example 26 the following compound is prepared:



Melting point: 132 – 133 °C.

Example 28: N-((2-methoxy)ethyl)-N-methyl sulfonic acid-[(2-chloro-3-(2-chloro-5-(N-(3,4,5,6-tetrahydrophthalimido))phenylacryloyl)] amide

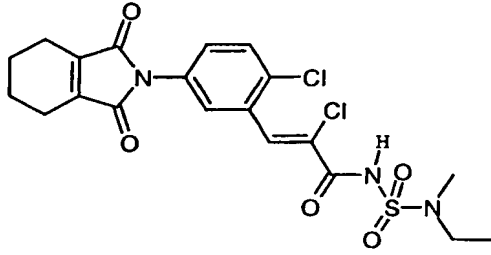
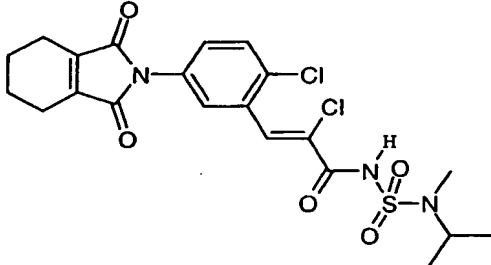


1.5 g of 2-chloro-3-(2-chloro-5-(N-(3,4,5,6-tetrahydrophthalimido))phenyl)propenoic acid (CAS-Nr. 175156-71-5, obtained similarly to the process described in EP 0300387) and 50 ml of thionylchloride are refluxed for 3 hours and then the reaction mixture is evaporated to dryness. 0.53 g (1.4 mmol) of the resulting acid chloride in 15 ml of dichloromethane are mixed with 0.20 g of N-methyl-N-((2-methoxy)ethyl)sulfamic acid amide and 0.3 g (3.1 mmol) of triethylamine and a

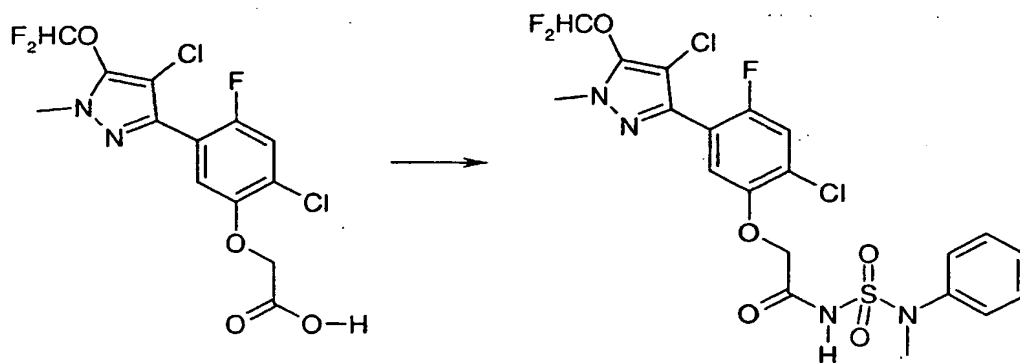
5 catalytic amount of 4-dimethylaminopyridine and reacted in a manner according to the procedure described in Example 26. After work-up 0.1 g of the title compound are obtained. Melting-point 110°C.

Using an essentially similar procedure and the appropriate sulfamide the compounds of examples 29 and 30 were obtained.

10

Example		melting point [°C]
29		180-182
30		178-179

Example 31: N-methyl-N-phenyl sulfamic acid [2-(2-chloro-5-(4-chloro-5-difluoromethoxy-1-methyl-pyrazol-3-yl)-4-fluoro)-phenoxy)acetyl] amide



15 To 0.5 g (1.3 mmol) of 2-(2-chloro-5-(4-chloro-5-difluoromethoxy-1-methyl-pyrazol-3-yl)-4-fluorophenoxy acetic acid (CAS-Nr. 129630-17-7, EP 361114) in 50 ml of dichloromethane are added 0.13 ml (1.56 mmol) of oxalyl chloride. The mixture is refluxed until the gas evolution ceased. The reaction mixture is concentrated and the residue is dissolved in 50 ml of dichloromethane and 0.51 ml (3.64 mmol) of

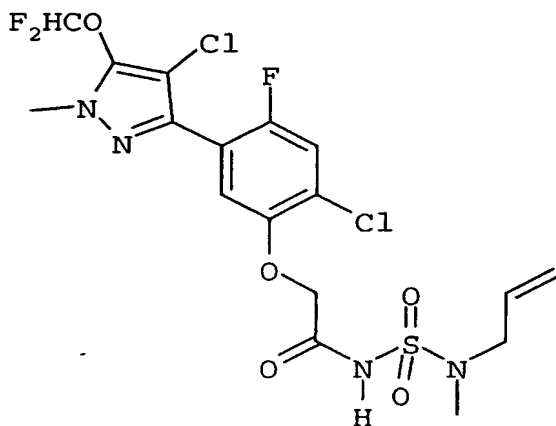
20 triethylamine. 0.266 g N-methyl-N-phenyl-sulfamic acid amide and a catalytic amount

of 4-dimethylaminopyridine are added and the mixture is reacted similarly to the procedure described in Example 26. Work-up yield 0.98 g of the title compound.

¹H-NMR (400 MHz, CDCl₃, [ppm]) δ: 9.0 (br. s, 1H), 7.5-7.2 (m, 6H), 7.1 (d, 1H), 6.7 (t, 1H), 4.6 (s, 2H), 3.8 (s, 3H), 3.5 (s, 3H)

Example 32: N-methyl-N-propen-3-yl sulfamic acid [2-(2-chloro-5-(4-chloro-5-difluoromethoxy-1-methyl-pyrazol-3-yl)-4-fluoro)-phenoxy]acetyl] amide

Using an essentially similar procedure as in Example 31 and the N-methyl-N-propen-3-yl sulfamide the compound of example 32 is prepared:



¹H-NMR (400 MHz, CDCl₃ [ppm]) δ: 9.0 (br. s, 1H), 7.3 (d, 1H), 7.1 (d, 1H), 6.7 (t, 1H), 5.8 (m, 1H), 5.3-5.2 (m, 2H), 4.6 (s, 2H), 4.0 (d, 2H), 3.9 (s, 3H), 3.0 (s, 3H).

Herbicide Testing

Test compounds described in Table 2b were used in herbicide testing.

1. Postemergence Herbicide Evaluation of Test Compounds (POST)

Postemergence herbicide activity of the compounds of the present invention is demonstrated by the following tests wherein a variety of dicotyledonous and monocotyledonous plants (described in Table 2a) are treated with test compounds (described in Table 2b). In the tests, seedling plants were grown in jiffy flats for about

two weeks. The test compounds were dispersed in 50/50 acetone/water mixtures containing 0.5% TWEEN®20, a polyoxyethylene sorbitan monolaurate surfactant of Atlas Chemical Industries, in sufficient quantities to provide the equivalent of about 0.0157 kg to about 0.250 kg per hectare of active compound when applied to the plants through a spray nozzle operating at 40 psi for a predetermined time. After spraying, the plants were placed on greenhouse benches and cared for in accordance with conventional greenhouse procedures. One and two weeks after treatment (WAT), the seedling plants were examined and rated according to the rating system set forth below (Table 2c), with the results as shown in Table 2d.

2. Preemergence Herbicidal Evaluation of Test Compounds (PRE)

The preemergence herbicidal activity of the test compounds of the present invention is exemplified by the following tests in which the seeds of a variety of monocotyledonous and dicotyledonous plants were separately mixed with potting soil and planted on top of approximately one inch of soil in separate pint cups. After planting, the cups were sprayed with the selected aqueous acetone solution containing test compound in sufficient quantity to provide the equivalent of about 0.0157 kg to about 0.250 kg per hectare of test compound per cup. The treated cups were then placed on greenhouse benches, watered and cared for in accordance with conventional greenhouse procedures. Approximately three weeks after treatment (WAT), the tests were terminated and each cup is examined and rated according to the rating system provided in Table 2c with the results as shown in Table 2d.

Table 2a: Plants Tested

<u>Bayer Code</u>	<u>Common Name</u>	<u>Scientific Name</u>
ABUTH	Velvetleaf	<i>Abutilon theophrasti</i>
AMATA	Waterhemp, Common	<i>Amaranthus rudis</i>
AMBEL	Ragweed, Common	<i>Ambrosia artemisiifolia</i>
CHEAL	Lambsquarters, Common	<i>Chenopodium album</i>
IPOHE	Morningglory, Ivyleaf	<i>Ipomea hederacea</i>
STEME	Chickweed, Common	<i>Stellaria media</i>
XANST	Cocklebur	<i>Xanthium strumarium</i>
ALOMY	Blackgrass	<i>Alopecurus myosuroides</i>
DIGSA	Crabgrass, Large	<i>Digitaria sanguinalis</i>
ECHCG	Barnyardgrass	<i>Echinochloa crus-galli</i>
SETVI	Foxtail, Green	<i>Setaria viridis</i>

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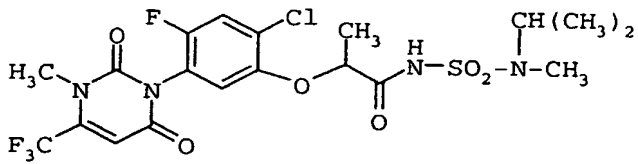
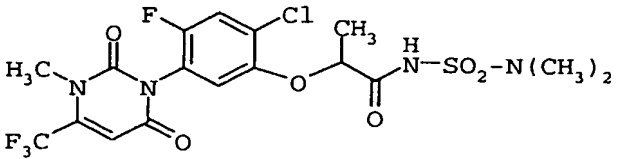
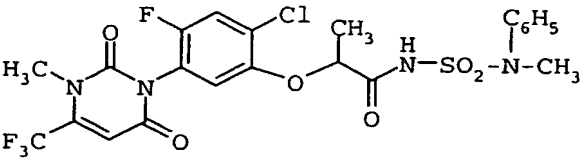
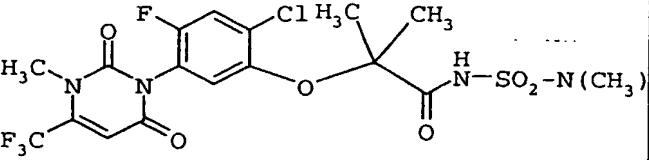
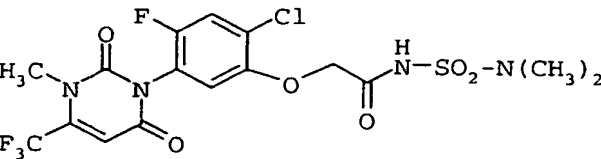
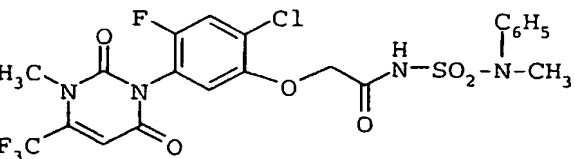
GLXMA
ORYSA
TRZAW
ZEAMX

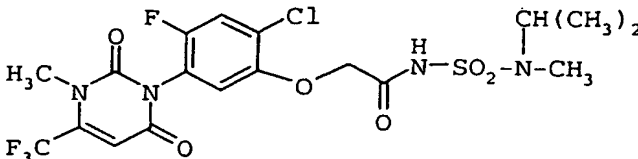
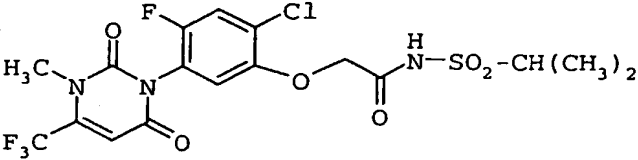
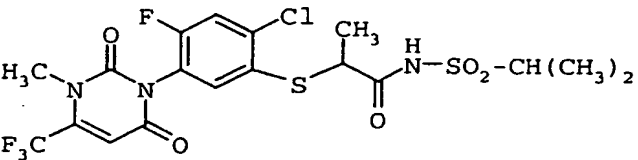
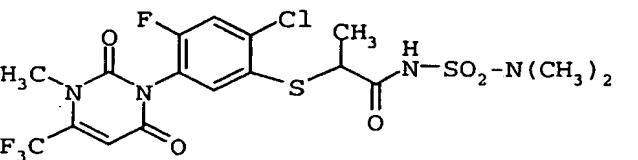
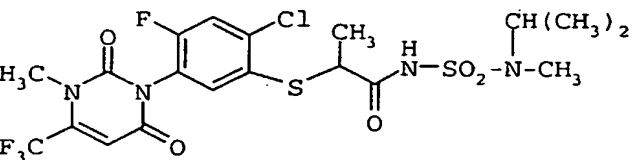
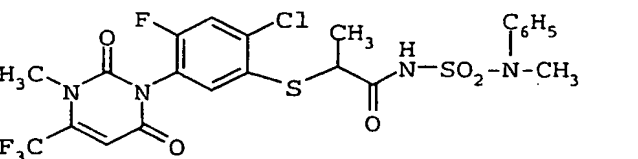
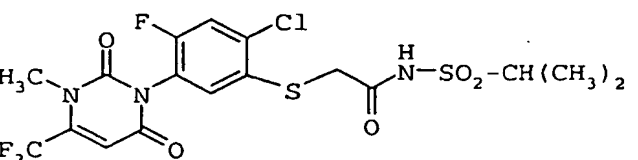
Soybeans
Rice
Wheat, Winter
Corn, Field

Glycine max
Oryza sativa
Triticum aestivum
Zea mays

10

Table 2b: Compounds Tested

Test Compound	Chemical Structure	Chemical Name
1		Isopropyl-methyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenoxy]-propionyl}-amide
2		Dimethyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenoxy]-propionyl}-amide
3		Methyl-phenyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenoxy]-propionyl}-amide
4		Dimethyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenoxy]-2-methylpropionyl}-amide
5		Dimethyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenoxy]-acetyl}-amide
6		Methyl-phenyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenoxy]-acetyl}-amide

Test Compound	Chemical Structure	Chemical Name
7		Isopropyl-methyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenoxy]-acetyl}-amide
8		Propane-2-sulfonic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenoxy]-acetyl}-amide
9		Propane-2-sulfonic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenylsulfanyl]-propionyl}-amide
10		Dimethyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenylsulfanyl]-propionyl}-amide
11		Isopropyl-methyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenylsulfanyl]-propionyl}-amide
12		Methyl-phenyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenylsulfanyl]-propionyl}-amide
13		Propane-2-sulfonic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenylsulfanyl]-acetyl}-amide

Test Compound	Chemical Structure	Chemical Name
14		Dimethyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenylsulfanyl]-acetyl}-amide
15		Isopropyl-methyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenylsulfanyl]-acetyl}-amide
16		Methyl-phenyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenylsulfanyl]-acetyl}-amide
17		Propane-2-sulfonic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenylamino]-acetyl}-amide
18		Dimethyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenylamino]-acetyl}-amide
19		Methyl-phenyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenylamino]-acetyl}-amide
20		Dimethyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenyl]-acetyl}-amide

Test Compound	Chemical Structure	Chemical Name
21		Isopropyl-methyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenyl]-acetyl}-amide
22		Methyl-phenyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenyl]-acetyl}-amide
23		Methyl-phenyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenyl]-propionyl}-amide
24		Isopropyl-methyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenyl]-propionyl}-amide
25		Dimethyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenyl]-propionyl}-amide

Table 2c: Herbicide Rating Scale

Results of herbicide evaluation are expressed on a rating scale of 0 to 9. The scale is based upon a visual observation of plant stand, vigor, malformation, size, chlorosis and overall plant appearance as compared with a control.

Rating	Meaning	%Control Compared to Check
9	Complete kill	100
8	Approaching complete kill	91-99
7	Good herbicidal effect	80-90
6	Herbicidal effect	65-79
5	Definite injury	45-64
4	Injury	30-44

5	3	Moderate effect	16-29
	2	Slight effect	6-15
	1	Trace effect	1-5
	0	No effect	0

Table 3a: Herbicidal Evaluation Results for POST

Test Cpd	Rate g/ha	POST 2 WAT														1 WAT				
		ABUTH	AMATA	AMBEL	CHEAL	IPOHE	STEME	XANST	ALOMY	DIGSA	ECHCG	SETVI	GLXMA	ORYSA	TRZAW	ZEAMX	GLXMA	ORYSA	TRZAW	ZEAMX
9	125																			
	64																			
	32	9	9	9	8	9	9	9	6	8	9	9	8	7	8	9	8	8	8	8
	16	9	9	9	8	9	9	9	5	8	9	9	8	6	6	8	8	8	8	8
	8	9	9	9	8	9	8	9	4	8	9	9	8	6	5	8	8	7	8	8
10	125																			
	64																			
	32	9	9	9	9	9	9	9	6	8	9	9	8	7	8	8	8	8	8	8
	16	9	9	9	8	9	8	9	6	8	9	9	8	6	6	8	8	7	8	8
	8	9	9	9	8	9	8	9	5	8	8	9	8	6	5	8	8	6	8	8
11	125																			
	64																			
	32	9	9	9	8	9	9	9	6	9	9	9	9	7	7	8	8	8	8	8
	16	9	9	9	9	9	8	9	5	8	9	9	8	6	7	8	8	7	8	8
	8	9	9	9	8	9	8	9	5	8	9	9	8	6	5	8	8	7	8	8
12	125																			
	64																			
	32	9	9	9	9	9	8	9	5	8	9	9	8	6	7	9	8	7	8	8
	16	9	9	9	9	9	8	9	5	8	8	9	8	5	6	8	8	7	8	8
	8	9	9	9	8	9	8	9	4	7	6	7	7	4	5	5	8	6	7	7
8	64																			
	32																			
	16	9	9	8	8	9	6	9	3	8	8	8	8	5	4	8	8	8	7	8
	8	9	9	8	8	9	5	9	2	3	7	8	8	5	3	6	8	6	6	6
13	125																			
	64																			
	32																			
	16	9	9	9	8	9	8	9	3	8	6	8	8	6	4	8	8	7	7	8
	8	9	9	9	8	9	8	9	3	6	5	8	8	5	4	8	8	6	7	8
5	125																			
	64																			
	32																			
	16	9	9	9	9	9	8	9	3	8	8	8	8	7	4	7	8	8	7	8
	8	9	9	8	8	9	3	9	2	7	8	8	8	4	4	7	8	5	7	8
14	125																			
	64																			
	32																			
	16	9	9	9	8	9	8	9	3	7	7	8	8	6	5	8	8	8	8	8
	8	9	9	8	8	9	8	9	2	7	7	8	8	4	4	8	8	7	7	8
20	125																			
	64																			
	32																			
	16	9	9	8	8	9	8	9	3	6	8	7	8	4	4	8	8	7	8	8
	8	9	9	8	8	9	5	9	3	4	8	7	8	3	3	8	8	7	7	8
25	250																			
	125																			
	64																			
	32	9	9	9	8	9	9	9	7	8	9	9	9	7	8	8	8	8	8	8
	16	9	9	8	8	9	8	9	7	8	9	9	9	7	8	8	8	8	8	8
	8	9	9	8	8	9	8	9	5	8	8	8	9	5	8	8	8	7	8	8
21	125																			
	64																			
	32																			
	16	9	9	9	8	8	3	9	3	4	8	8	7	2	3	8	8	7	7	8

Test Cpd	Rate g/ha	POST 2 WAT																1 WAT		
		ABUTH	AMATA	AMBEL	CHEAL	IPOHE	STEME	XANST	ALOMY	DIGSA	ECHCG	SETVI	GLXMA	ORYSA	TRZAW	ZEAMX	GLXMA	ORYSA	TRZAW	ZEAMX
	8	9	9	8	8	8	2	9	2	5	8	7	5	2	1	7	8	6	4	8
24	125																			
	64																			
	32																			
	16	9	9	9	8	9	8	9	4	8	9	9	8	5	8	8	8	8	8	8
	8	9	9	9	8	8	8	9	3	6	8	8	8	4	8	8	8	8	8	8
15	125																			
	64																			
	32																			
	16	9	9	9	8	9	8	9	3	7	8	9	8	5	4	8	8	7	7	8
	8	9	9	9	8	9	4	9	2	4	7	8	8	3	3	8	8	6	7	8
7	125																			
	64																			
	32																			
	16	9	9	9	8	9	6	8	3	8	8	9	8	3	2	7	8	7	7	8
	8	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
22	125																			
	64																			
	32																			
	16	9	9	9	8	9	5	9	3	4	7	8	8	2	3	8	8	6	6	8
	8	9	9	8	8	9	2	9	2	3	6	4	6	1	2	6	8	5	5	8
23	125																			
	64																			
	32																			
	16	9	9	9	7	9	8	9	3	4	8	7	8	3	4	8	8	7	8	8
	8	9	9	9	6	9	4	9	2	4	4	7	8	3	3	6	8	5	7	7
16	125																			
	64																			
	32																			
	16	9	9	9	8	9	6	9	2	8	8	9	8	5	3	8	8	7	7	8
	8	9	9	9	7	9	4	9	1	7	7	9	8	5	2	7	8	6	7	8
6	125																			
	64																			
	32																			
	16	9	9	9	8	9	5	9	2	5	7	7	8	3	2	7	8	7	7	8
	8	9	9	9	6	9	3	8	1	4	6	6	7	1	1	8	8	6	6	8
17	125																			
	64																			
	32																			
	16	9	9	9	9	9	5	9	5	8	8	8	8	4	6	8	8	7	8	8
	8	9	9	9	6	9	4	9	4	8	6	8	8	3	5	8	8	5	7	8
18	125																			
	64																			
	32																			
	16	9	9	9	9	9	8	9	5	8	8	8	8	7	5	8	8	5	8	8
	8	9	9	9	8	9	6	9	4	8	7	8	8	5	4	7	8	5	8	8
1	125																			
	64																			
	32																			
	16	9	9	9	9	9	9	9	6	9	9	9	9	6	8	8	8	7	8	8
	8	9	9	9	8	9	8	9	4	9	9	9	9	5	6	8	8	6	8	8
4	125																			
	64																			
	32																			
	16	9	9	9	8	9	4	9	5	8	8	8	7	6	5	8	8	6	8	8
	8	9	9	9	8	9	4	9	4	8	8	8	5	4	4	7	8	6	8	8
2	125																			
	64																			
	32																			
	16	9	9	9	8	9	8	9	7	9	9	9	8	7	8	9	8	7	8	8

		POST 2 WAT															1 WAT			
Test Cpd	Rate g/ha	ABUTH	AMATA	AMBEL	CHEAL	IPOHE	STEME	XANST	ALOMY	DIGSA	ECHCG	SETVI	GLXMA	ORYSA	TRZAW	ZEAMX	GLXMA	ORYSA	TRZAW	ZEAMX
	8	9	9	9	8	9	7	9	6	8	8	8	8	5	6	8	8	7	8	8
3	125																			
	64																			
	32																			
	16	9	9	9	9	9	8	9	5	8	8	9	9	5	7	8	8	7	8	8
	8	9	9	9	9	9	8	9	4	8	6	8	8	3	5	8	8	6	7	8
	4	9	9	8	8	9	7	9	3	6	5	7	8	1	3	6	8	4	6	7
19	125																			
	64																			
	32																			
	16	9	9	9	9	9	7	9	3	8	7	8	9	3	5	8	8	5	8	8
	8																			
	4	9	9	8	8	9	6	9	2	6	4	5	8	2	3	4	8	4	7	6

Table 3b: Herbicidal Evaluation Results for PRE

Test Cpd.	Rate g/ha	PRE 3 WAT														
		ABUTH	AMATA	AMBEL	CHEAL	IPOHE	STEME	XANST	ALOMY	DIGSA	ECHCG	SETVI	GLXMA	ORYSA	TRZAW	ZEAMX
9	125	9	9	9	9	9	9	9	1	9	8	7	1	3	1	1
	64	9	9	8	9	8	8	3	0	8	3	2	0	7	0	0
	32	9	9	5	7	6	7	1	0	6	2	1	0	3	0	0
	16	8	8	6	6	2	6	0	0	2	0	0	0	0	0	0
	8															
10	125	9	9	9	9	9	9	8	1	8	6	6	1	2	0	1
	64	9	8	9	8	7	8	2	0	6	5	2	0	1	0	0
	32	8	8	6	8	0	8	0	0	5	1	1	0	0	0	0
	16	3	8	5	5	0	6	0	0	2	0	0	0	0	0	0
	8															
11	125	9	9	9	9	9	8	9	0	8	5	8	2	5	0	0
	64	9	9	7	9	6	8	1	0	7	2	5	1	4	0	0
	32	9	8	6	9	3	7	0	0	6	0	2	0	4	0	0
	16	7	9	3	6	0	2	0	0	5	0	0	0	3	0	0
	8															
12	125	9	9	9	9	0	9	9	0	7	4	5	1	4	0	0
	64	9	9	7	9	2	7	X	0	5	2	3	0	4	0	0
	32	9	8	5	6	2	3	0	0	3	0	2	0	0	0	0
	16	8	8	1	7	0	6	0	0	0	0	0	0	0	0	0
	8															
8	64	9	9	9	9	8	3	8	0	7	0	4	0	5	0	0
	32	9	8	9	8	2	0	2	0	5	0	2	0	5	0	0
	16	8	8	4	8	0	0	1	0	2	0	0	0	0	0	0
	8	5	6	2	6	0	0	0	0	2	0	0	0	0	0	0
13	125															
	64	9	9	8	9	9	8	6	0	5	0	2	0	5	0	0
	32	8	9	7	8	9	5	1	0	2	0	5	0	3	0	0
	16	8	8	7	8	1	5	1	0	2	0	0	0	2	0	0
5	8	6	8	6	3	0	2	0	0	0	0	0	0	0	0	0
	125															
	64	9	9	8	9	8	8	5	0	7	3	5	0	6	0	0
32	9	8	8	9	7	6	2	0	5	0	0	0	0	6	0	0

PRE 3 WAT																
Test Cpd.	Rate g/ha	ABUTH	AMATA	AMBEL	CHEAL	IPOHE	STEME	XANST	ALOMY	DIGSA	ECHCG	SETVI	GLXMA	ORYSA	TRZAW	ZEAMX
	16	8	8	5	7	2	4	1	0	3	0	0	0	0	0	0
	8	6	5	4	7	0	2	0	0	0	0	0	0	0	0	0
14	125															
	64	9	9	8	9	8	9	1	1	5	3	4	0	7	0	0
	32	9	8	7	9	5	6	0	0	2	3	2	0	4	0	0
	16	5	8	6	3	3	5	0	0	0	0	0	0	0	0	0
	8	6	7	3	2	0	4	0	0	0	0	0	0	0	0	0
20	125	9	9	9	9	9	9	9	2	6	4	4	0	7	0	0
	64	9	9	8	9	6	8	8	0	5	3	2	0	5	0	0
	32	9	8	7	9	7	8	3	0	3	2	0	0	0	0	0
	16	7	8	2	2	3	5	0	0	3	2	0	0	0	0	0
	8															
25	250															
	125	9	9	9	9	9	9	9	8	9	9	9	9	8	3	2
	64	9	9	9	9	8	9	7	5	9	8	7	5	8	1	0
	32	9	9	7	8	3	8	3	2	7	7	5	0	4	0	0
	16	9	8	6	8	0	8	3	0	6	2	3	0	2	0	0
21	125															
	64	9	8	7	9	5	0	4	0	0	0	2	0	0	0	0
	32	9	8	6	8	0	0	0	0	2	0	0	0	0	0	0
	16	9	8	3	7	0	0	0	0	0	0	0	0	0	0	0
	8	0	6	0	1	0	0	0	0	0	0	0	0	0	0	0
24	125															
	64	9	8	5	8	3	8	6	0	6	8	5	1	3	1	0
	32	8	8	6	8	1	3	0	0	6	4	6	0	1	0	0
	16	9	8	5	9	1	6	0	0	5	2	3	0	0	0	0
	8	2	3	3	1	1	0	0	0	0	0	1	0	0	0	0
15	125															
	64	9	8	9	9	3	5	2	0	4	1	7	0	0	0	0
	32	8	8	8	8	0	4	0	0	2	0	6	0	0	0	0
	16	6	7	2	8	0	2	0	0	0	0	0	0	0	0	0
	8	2	6	2	4	0	0	0	0	0	0	0	0	0	0	0
7	125															
	64	9	9	9	8	3	3	2	0	6	2	5	0	0	0	0
	32	8	8	2	6	3	3	0	0	2	0	1	0	0	0	0
	16	6	5	0	4	3	0	0	0	0	0	0	0	0	0	0
	8	1	1	0	0	3	0	0	0	0	0	0	0	0	0	0
22	125															
	64	9	9	7	9	7	4	3	0	0	0	2	0	0	0	0
	32	9	8	6	8	2	0	0	0	0	0	0	0	0	0	0
	16	3	5	2	2	0	0	0	0	0	0	0	0	0	0	0
	8	1	5	2	5	0	0	0	0	0	0	0	0	0	0	0
23	125															
	64	9	8	4	8	5	9	2	0	4	1	2	1	0	0	0
	32	8	5	3	5	0	4	0	0	3	0	0	0	0	0	0
	16	6	5	3	2	0	2	0	0	3	0	0	0	0	0	0
	8	2	1	0	2	0	0	0	0	3	0	0	0	0	0	0
16	125															
	64	9	8	8	9	9	6	0	0	5	2	5	0	2	0	0
	32	8	8	5	6	2	3	0	0	5	2	2	0	5	0	0
	16	7	8	2	6	0	0	0	0	3	0	0	0	0	0	0
	8	4	6	2	1	X	0	0	0	3	0	0	0	0	0	0
6	125															
	64	9	8	8	9	2	2	2	0	5	0	3	0	0	0	0
	32	8	8	6	9	2	2	0	0	2	0	0	0	0	0	0
	16	6	6	0	2	0	0	0	0	2	0	0	0	0	0	0
	8	3	5	0	X	0	0	0	0	0	0	0	0	0	0	0

PRE 3 WAT																
Test Cpd.	Rate g/ha	ABUTH	AMATA	AMBEL	CHEAL	IPOHE	STEME	XANST	ALOMY	DIGSA	ECHCG	SETVI	GLXMA	ORYSA	TRZAW	ZEAMX
17	125															
	64	9	9	8	8	2	6	7	0	7	3	6	X	3	0	0
	32	9	8	6	8	2	3	2	0	3	1	2	0	2	0	0
	16	6	7	2	8	0	3	0	0	3	0	0	0	0	0	0
	8	6	3	2	5	0	3	0	0	2	0	0	0	0	0	0
18	125															
	64	9	9	8	9	6	7	4	0	4	2	4	1	0	0	0
	32	9	8	6	9	0	6	0	0	2	0	0	0	0	0	0
	16	8	8	7	7	0	0	0	0	0	0	0	0	0	0	0
	8	4	6	4	9	0	0	0	0	0	0	0	0	0	0	0
1	125															
	64	9	9	9	9	6	8	8	2	8	8	9	3	0	0	1
	32	9	8	7	9	0	8	4	0	4	5	8	0	0	0	0
	16	8	9	6	9	0	5	3	0	0	2	3	0	0	0	0
	8	5	7	5	9	0	2	0	0	0	2	0	0	0	0	0
4	125															
	64	9	8	8	9	0	3	2	0	4	5	4	0	0	0	0
	32	7	8	6	9	0	0	0	0	2	2	0	0	0	0	0
	16	7	5	5	4	0	0	0	0	0	0	0	0	0	0	0
	8	2	5	5	2	0	0	0	0	0	0	0	0	0	0	0
2	125															
	64	9	9	9	9	7	9	8	4	8	7	7	0	3	0	2
	32	9	9	7	9	5	8	7	3	7	5	7	0	2	0	1
	16	8	8	7	7	0	7	2	1	1	3	2	0	0	0	0
	8	7	6	6	7	0	2	0	0	0	1	0	0	0	0	0
3	125															
	64	9	8	8	9	0	7	4	1	6	2	3	2	0	0	0
	32	7	8	6	9	0	6	2	0	4	1	1	1	0	0	0
	16	6	7	0	5	0	2	0	0	1	0	0	0	0	0	0
	8	1	4	0	2	0	0	0	0	0	0	0	0	0	0	0
19	125															
	64															
	32	8	8	2	8	8	2	2	0	0	1	0	0	1	0	0
	16															
	8	2	2	1	2	0	0	0	0	0	0	0	0	0	0	0
	4															
	125															
	64															
	32															
	16															

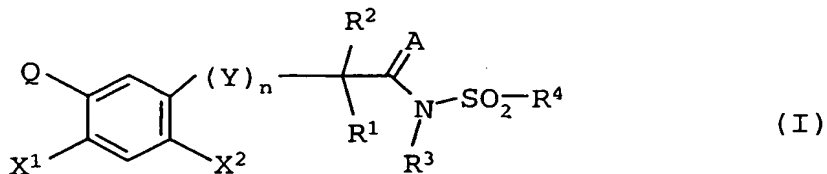
Throughout this application, various publications are referenced. The disclosures of these publications in their entireties are hereby incorporated by reference into this application for all purposes.

It will be apparent to those skilled in the art that various modifications and variations can be made in the present invention without departing from the scope or spirit of the invention. Other embodiments of the invention will be apparent to those skilled in the art from consideration of the specification and practice of the invention disclosed herein. It is intended that the specification and examples be considered as

exemplary only, with a true scope and spirit of the invention being indicated by the following claims.

We claim:

1. A compound of formula I:



wherein:

A is O or S;

X¹ and X² are each independently H or halogen;

n is 0 or 1

Y is O, NR, S(O)_m or a group CHR';

m is 0, 1, or 2;

R is H, C₁-C₄ alkyl, C₁-C₄ alkoxyalkyl, or optionally substituted benzyl;

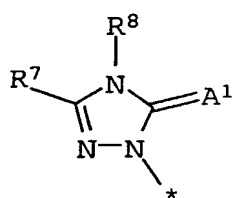
R' is hydrogen or R' and R² form a bond;

R¹ and R² are each independently H, C₁-C₆ alkyl, or halogen, or R¹ and R² taken together are =CH₂, or form a cyclopropyl ring with the carbon to which they are attached;

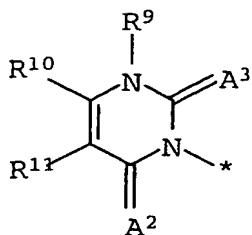
R³ is H, CN, C₁-C₆ alkyl, C₁-C₆ alkoxyalkyl, C₃-C₇ cycloalkyl, C₂-C₆ alkenyl, C₃-C₆ alkynyl or optionally substituted benzyl;

R⁴ is NR⁵R⁶, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₃-C₇ cycloalkyl, C₂-C₆ alkenyl, C₃-C₆ alkynyl, optionally substituted phenyl, optionally substituted 4 to 7 membered heterocyclyl or optionally substituted benzyl;

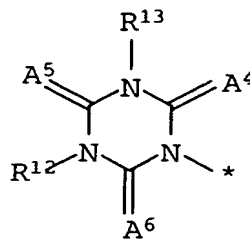
Q is selected from



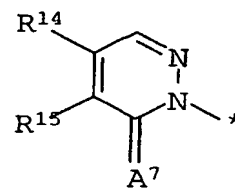
Q1



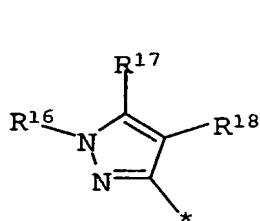
Q2



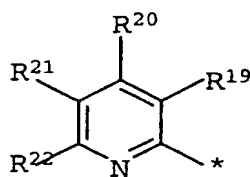
Q3



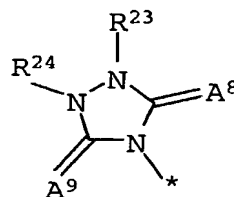
Q4



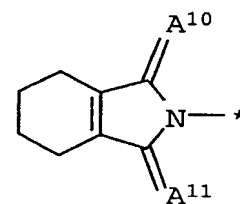
Q5



Q6



Q7



Q8

5

wherein the Q group is attached to the compound of formula I at *;

R^5 and R^6 are each independently H, C_1 - C_{10} alkyl, C_2 - C_{10} alkenyl, C_3 - C_{10} alkynyl, C_3 - C_8 cycloalkyl, phenyl, benzyl or C_5 - C_8 cycloalkenyl, where each of the
 10 aforementioned seven groups can be substituted with any combination of 1, 2,
 3, 4 or 5 halogen atoms, 1, 2 or 3 C_1 - C_6 alkoxy groups, 1 or 2 C_1 - C_8 haloalkoxy
 groups, 1 or 2 cyano groups, 1 or 2 C_3 - C_7 cycloalkyl groups, 1 or 2 two
 $C(O)R^{25}$ groups, 1 or 2 $C(O)OR^{26}$ groups, 1 or 2 $C(O)NR^{28}R^{29}$ groups, 1, 2 or 3
 OR^{30} groups, 1, 2 or 3 SR^{31} groups, one optionally substituted four to ten
 15 membered monocyclic or fused bicyclic heterocycle, one or two optionally
 substituted phenyl groups or one or two optionally substituted benzyl groups, or

R^5 may be also a group $CONR^{5a}R^{6a}$ or $SO_2NR^{5a}R^{6a}$ wherein R^{5a} and R^{6a} are
 20 each independently H, C_1 - C_{10} alkyl, C_2 - C_{10} alkenyl, C_3 - C_{10} alkynyl, C_3 - C_8
 cycloalkyl, phenyl, benzyl or C_5 - C_8 cycloalkenyl, where each of the

aforementioned seven groups can be substituted with any combination of 1, 2, 3, 4 or 5 halogen atoms, 1, 2 or 3 C₁-C₆ alkoxy groups, 1 or 2 C₁-C₈ haloalkoxy groups, 1 or 2 cyano groups, 1 or 2 C₃-C₇ cycloalkyl groups, 1 or 2 two C(O)R²⁵ groups, 1 or 2 C(O)OR²⁶ groups, 1 or 2 C(O)NR²⁸R²⁹ groups, 1, 2 or 3 OR³⁰ groups, 1, 2 or 3 SR³¹ groups, one optionally substituted four to ten membered monocyclic or fused bicyclic heterocycle, one or two optionally substituted phenyl groups or one or two optionally substituted benzyl groups, or

R⁵ and R⁶ together with the atom to which they are attached form a three to seven membered heterocycle;

A¹, A², A³, A⁴, A⁵, A⁶, A⁷, A⁸, A⁹, A¹⁰ and A¹¹ are each independently O or S;

R⁷, R⁸, R⁹, R¹², R¹³, R¹⁶, R¹⁷, R²³ and R²⁴ are each independently H, CN, NH₂, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ haloalkoxy, C₃-C₇ cycloalkyl, C₂-C₆ alkenyl, C₂-C₆ haloalkenyl, C₃-C₆ alkynyl, benzyl, OR³², C₁-C₃ cyanoalkyl, or R⁷ and R⁸ or R²³ and R²⁴ may be taken together with the atoms to which they are attached to represent a four- to seven membered ring, optionally interrupted by oxygen, sulfur or nitrogen and optionally substituted with one or more halogen or C₁-C₄ alkyl groups;

R¹⁰, R¹¹, R¹⁴, R¹⁵, R¹⁹, R²⁰, R²¹ and R²² are each independently H, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₃-C₇ cycloalkyl, C₂-C₆ alkenyl, C₂-C₆ haloalkenyl, C₃-C₆ alkynyl, OR³³, S(O)_mR³⁴, OSO₂R³⁵, NR³⁶R³⁷ or

R¹⁰ and R¹¹ may be taken together with the atoms to which they are attached to represent a four to seven membered ring optionally substituted with one or more halogen or C₁-C₄ alkyl groups,

one of the radicals R¹⁹, R²⁰, R²¹ or R²² may also be an optionally substituted phenyl group;

R¹⁸ is H, halogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₃-C₇ cycloalkyl, C₂-C₆ alkenyl, C₂-C₆ haloalkenyl, C₃-C₆ alkynyl, OR³⁸ or SR³⁹ or

R¹⁷ and R¹⁸ may be taken together with the atoms to which they are attached to represent a four to seven membered ring optionally substituted with one or more halogen or C₁-C₄ alkyl groups;

R²⁵, R²⁶, R²⁸, R²⁹, R³⁰, R³¹, R³², R³³, R³⁴, R³⁵, R³⁶, R³⁷, R³⁸ and R³⁹ are each independently H, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₃-C₇ cycloalkyl, C₂-C₆ alkenyl, C₃-C₆ alkynyl, optionally substituted phenyl or optionally substituted benzyl;

or optical isomers, salts or esters thereof.

2. The compound as claimed in claim 1, wherein Q is Q2, wherein

R⁹ is NH₂, C₁-C₄ alkyl, C₃ or C₄ alkenyl or C₃-C₄ alkynyl;

R¹⁰ is C₁-C₄ haloalkyl; and

R¹¹ is H.

3. The compound as claimed in any of the preceding claims, wherein X² is chlorine.

4. The compound as claimed in any of the preceding claims, wherein R⁴ is a group NR⁵R⁶.

5. The compound as claimed in any of the preceding claims, wherein R⁴ is C₁-C₆ alkyl or C₁-C₆ haloalkyl.

6. The compound as claimed in claims 4 or 5, wherein R³ is H, A is O, Y is O, n is 1, R¹ and R² are independently of each other hydrogen or alkyl, and Q is Q2.

7. The compound as claimed in claim 6, wherein A² and A³ are each O.

8. The compound as claimed in claim 1, wherein:

A is O;

Y is O, NH or S;

n is 0 or 1;

R¹ and R² are each independently H, C₁-C₄ alkyl or halogen;

R³ is H or C₁-C₄ alkyl;

R⁴ is NR⁵R⁶, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₃-C₇ cycloalkyl, C₂-C₆ alkenyl, C₃-C₆ alkynyl, optionally substituted phenyl or optionally substituted benzyl;

Q is Q²;

R⁵ and R⁶ are each independently H, C₁-C₆ alkyl, C₂-C₆ alkenyl, C₃-C₆ alkynyl, C₃-C₇ cycloalkyl, phenyl, benzyl or C₃-C₇ cycloalkenyl;

A² and A³ are each O;

R⁹ is NH₂, C₁-C₄ alkyl, C₃ or C₄ alkenyl or C₃-C₄ alkynyl;

R¹⁰ is C₁-C₄ haloalkyl; and

R¹¹ is H.

7. The compound as claimed in claim 6, wherein R³ is H, A is O, Y is O, n is 1, R¹ and R² are independently of each other hydrogen or C₁-C₄ alkyl.

8. The compound as claimed in claims 6 or 7, wherein R⁴ is a group NR⁵R⁶.

9. The compound as claimed in claim 8, wherein R⁵ is methyl.

10. The compound as claimed in claims 6 to 9 wherein both R¹ and R² are methyl.

11. The compound as claimed in claim 1, which is: Propane-2-sulfonic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenylsulfanyl]-propionyl}-amide; Dimethyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenylsulfanyl]-propionyl}-amide; Isopropyl-methyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenylsulfanyl]-propionyl}-amide; Methyl-phenyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenylsulfanyl]-propionyl}-amide; Propane-2-sulfonic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenoxy]-acetyl}-amide; Propane-2-sulfonic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-

trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenylsulfanyl]-acetyl)-amide;
Dimethyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-
trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenoxy]-acetyl}-amide; Dimethyl-
sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-
5 dihydro-2H-pyrimidin-1-yl)-phenylsulfanyl]-acetyl}-amide; Dimethyl-sulfamic acid
{2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-
pyrimidin-1-yl)-phenyl]-acetyl}-amide; Isopropyl-methyl-sulfamic acid {2-[2-chloro-4-
fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-
phenyl]-acetyl}-amide; Isopropyl-methyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-
10 methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenyl]-
propionyl}-amide; Isopropyl-methyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-
2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenylsulfanyl]-acetyl}-
amide; Isopropyl-methyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-
trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenoxy]-acetyl}-amide; Methyl-
15 phenyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-
3,6-dihydro-2H-pyrimidin-1-yl)-phenyl]-acetyl}-amide; Methyl-phenyl-sulfamic acid
{2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-
pyrimidin-1-yl)-phenyl]-propionyl}-amide; Methyl-phenyl-sulfamic acid {2-[2-chloro-
4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-
20 phenylsulfanyl]-acetyl}-amide; Methyl-phenyl-sulfamic acid {2-[2-chloro-4-fluoro-5-
(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenoxy]-
acetyl}-amide; Propane-2-sulfonic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-
trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenylamino]-acetyl}-amide;
Dimethyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-
25 trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenylamino]-acetyl}-amide;
Isopropyl-methyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-
trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenoxy]-propionyl}-amide;
Dimethyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-
trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenoxy]-2-methyl-propionyl}-amide;
30 Dimethyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-
trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenoxy]-propionyl}-amide;
Dimethyl-sulfamic acid 2-chloro-4-fluoro-5-(5-methyl-6-oxo-4-trifluoromethyl-6H-
pyridazin-1-yl)-benzoylamide; Methyl-phenyl-sulfamic acid {2-[2-chloro-4-fluoro-5-

(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenoxy]-propionyl}-amide; and Methyl-phenyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenylamino]-acetyl}-amide.

- 5
12. The compound as claimed in claim 1, which is: Propane-2-sulfonic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenylsulfanyl]-propionyl}-amide ; Dimethyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenylsulfanyl]-propionyl}-amide; Isopropyl-methyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenylsulfanyl]-propionyl}-amide; Methyl-phenyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenylsulfanyl]-propionyl}-amide; Dimethyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenylsulfanyl]-acetyl}-amide; Dimethyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenyl]-propionyl}-amide; Isopropyl-methyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenyl]-propionyl}-amide; Isopropyl-methyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenoxy]-propionyl}-amide; or Dimethyl-sulfamic acid {2-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-trifluoromethyl-3,6-dihydro-2H-pyrimidin-1-yl)-phenoxy]-propionyl}-amide.
- 10
- 15
- 20
- 25 13. An agricultural composition comprising at least one compound of the formula I or of an agriculturally utilizable salt of I, as claimed in any of the preceding claims, and at least one inert liquid and/or solid carrier and, if desired, at least one surface-active substance.
- 30 14. A method for controlling undesired vegetation, which comprises allowing a herbicidally active amount of at least one compound of the formula I or of an agriculturally utilizable salt of I, as claimed in any of claims 1 to 12, to act on plants, their habitat or on seed.

15. The method of claim 14, wherein the compound is formulated into a composition comprising, in addition to the compound of formula (I), a carrier.
16. The method of claim 15, wherein the formulation is a dusting powder or granule;
5 dispersible powder, granule or grain; aqueous dispersion; suspension; paste; or emulsion.
17. The method of claim 14, wherein the compound is applied at a rate of about 25 g per hectare to about 600 g per hectare.
- 10 18. A method for the desiccation and/or defoliation of plants, which comprises allowing an effective amount of at least one compound of the formula I having desiccant and/or defoliant activity or of an agriculturally utilizable salt of I, as claimed in any of claims 1 to 12, to act on plants.
- 15

INTERNATIONAL SEARCH REPORT

International Application No
PCT/EP 02/10758

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C07D239/54 C07D213/61 C07D209/48 C07D213/20 A01N43/54
A01N43/38 A01N43/56

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07D A01N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data, CHEM ABS Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 92 06962 A (MONSANTO CO) 30 April 1992 (1992-04-30) cited in the application	1,3,5, 13-18
Y	see general formula and page 5, line 3, pages 24-27 and compound no 238, page 85	1-18
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Y	see general formula and compound 248, page 28 and page 120	1-18
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☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

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Date of the actual completion of the international search

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INTERNATIONAL SEARCH REPORT

International Application No

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Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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Y	see the whole application, general formula I on page 5, definitions of Q and examples 5, compound nos 32-38,25-27 and 72	1-18

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Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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